XR-CA400/CA410

SERVICE MANUAL

AEP Model
UK Model

Ver 1.0 2001.01

Photo: XR-CA400

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-25L-136

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	
TYPE II, IV	61 dB
TYPE I	58 dB

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	
	0.6 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 40 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio output Power aerial relay control lead Power amplifier control lead
Input	Telephone ATT control lead
Tone controls	Bass ±9 dB at 100 Hz Treble ±9 dB at 10 kHz
Power requirements	12 V DC car battery (negative earth)
Dimensions	Approx. 178 × 50 × 176 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

MC-Service

FM/MW/LW CASSETTE CAR STEREO

9-870-235-11
2001A0500-1

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Sony Corporation
Audio Entertainment Group
General Engineering Dept.

SONY®

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

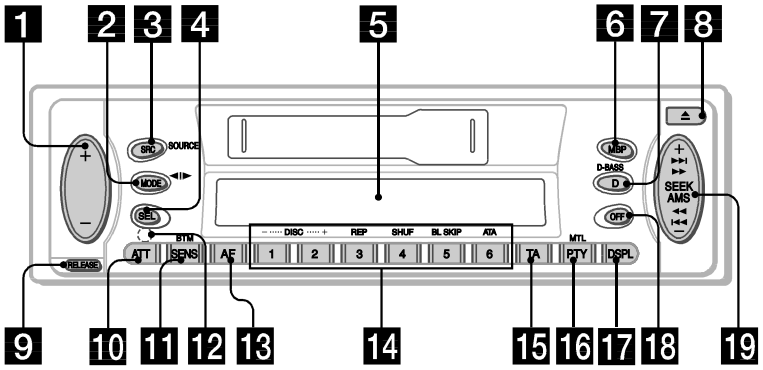
Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls



Refer to the pages listed for details.

1 Volume +/- button 7, 13, 17

2 MODE (◄I►) button

During tape playback:
Playback direction change 7, 8

During radio reception:
BAND select 9

During CD/MD playback:
CD/MD unit select 19

3 SRC (SOURCE) (TUNER/TAPE/CD/MD) button 7, 9, 19

4 SEL (select) button 7, 15, 17, 18, 19, 20

5 Display window

6 MBP (My Best sound Position) button 19

7 D (D-BASS) button 18

8 ⏏ (eject) button 7

9 RELEASE (front panel release) button 6, 22

10 ATT (attenuate) button 17

11 SENS/BTM button 9, 10, 13

12 RESET button (located on the front side of the unit behind the front panel) 6

13 AF button 11, 13

14 Number buttons 8, 9, 12, 15, 18, 20, 21

During radio reception:
Preset number select 9, 12

During tape playback:
③ REP 8
⑤ BL SKIP 8
⑥ ATA 8

During CD/MD playback:
① DISC - 20
② DISC + 20
③ REP 21
④ SHUF 21

15 TA button 12, 13

16 PTY/MTL (programme type/Metal) button 8, 14

17 DSPL (display mode change) button 7, 10, 19, 20

18 OFF button* 6, 7

19 SEEK/AMS +/- button 8, 9, 10, 11, 14, 20
Seek 9
Automatic Music Sensor 8, 20
Manual search 10, 20

*** Warning when installing in a car without ACC (accessory) position on the ignition key switch**
Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.
When you press (OFF) momentarily, the clock display does not turn off and this causes battery wear.

Setting the clock

The clock uses a 24-hour digital indication.

Example: To set the clock to 10:08

1 Press (DSPL) for two seconds.

The hour indication flashes.

❶ Press either side of the volume button to set the hour.

to go forward

to go back

❷ Press (SEL).

The minute indication flashes.

❸ Press either side of the volume button to set the minute.

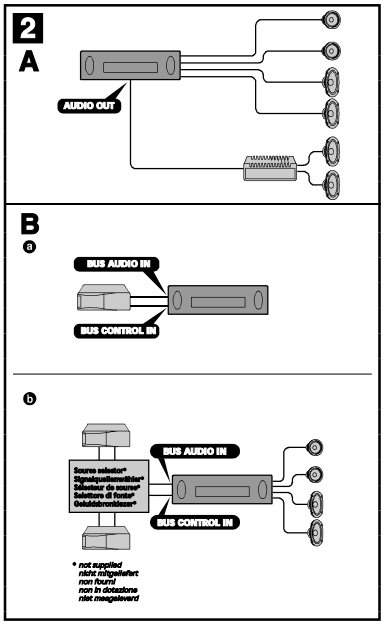
to go forward

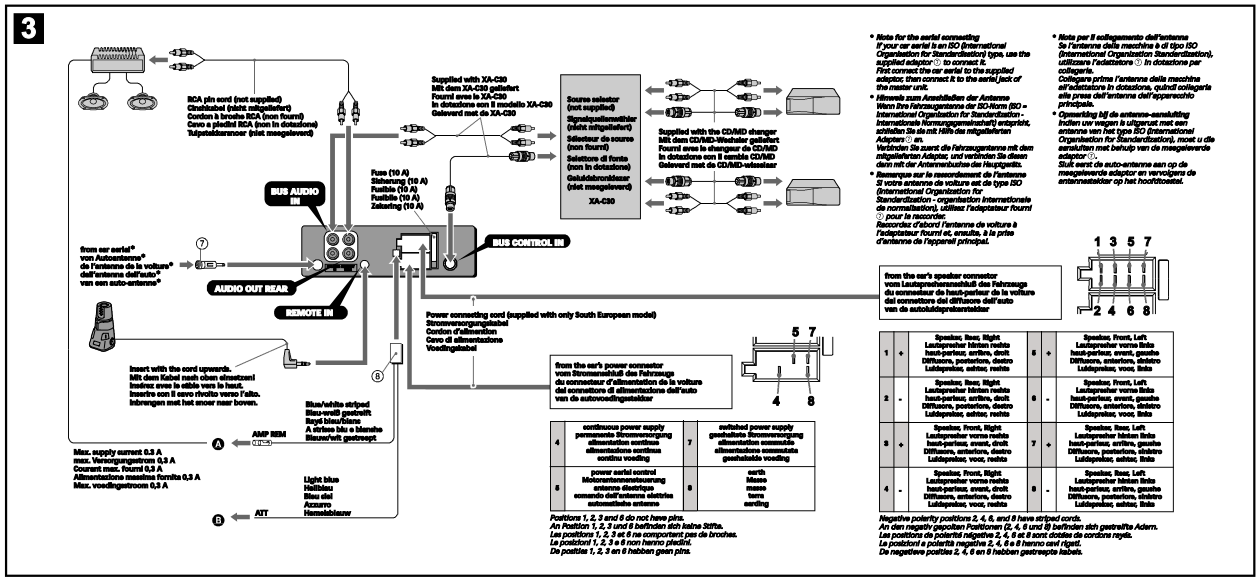
to go back

2 Press (DSPL).

The clock starts.

After the clock setting is complete, the display returns to normal playback mode.

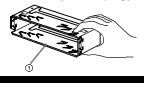

2
A
AUDIO OUT
B
a
BUS AUDIO IN
BUS CONTROL IN
b
BUS AUDIO IN
BUS CONTROL IN
* not supplied
nicht mitgeliefert
non fourni
non in dotazione
niet meegeleverd


3
RCA pin cord (not supplied)
Cinchkabel (nicht mitgeliefert)
Cordon à broche RCA (non fourni)
Cavo a piedini RCA (non in dotazione)
Tulpsteldraarsnoer (niet meegeleverd)
Supplied with XA-C30
Mit dem XA-C30 geliefert
Fourni avec le XA-C30
In dotazione con il modello XA-C30
Geleverd met de XA-C30
Source selector (not supplied)
Signalquellenwähler (nicht mitgeliefert)
Sélecteur de source (non fourni)
Selettore di fonte (non in dotazione)
Geluidsbronkiezer (niet meegeleverd)
XA-C30
Supplied with the CD/MD changer
Mit dem CD/MD-Wechsler geliefert
Fourni avec le changeur de CD/MD
In dotazione con il cambio CD/MD
Geleverd met de CD/MD-wisselaar
Fuse (10 A)
Sicherung (10 A)
Fusible (10 A)
Fusible (10 A)
Zekering (10 A)
BUS AUDIO IN
BUS CONTROL IN
from car aerial*
von Autoantenne*
de l'antenne de la voiture*
dell'antenna dell'auto*
van een auto-antenne*
AUDIO OUT REAR
REMOTE IN
Power connecting cord (supplied with only South European model)
Stromversorgungskabel
Cordon d'alimentation
Cavo di alimentazione
Voedingskabel
Insert with the cord upwards.
Mit dem Kabel nach oben einsetzen!
Insérez avec le câble vers le haut.
Inserire con il cavo rivolto verso l'alto.
Inbrengen met het snoer naar boven.
Blue/white striped
Blau-weiß gestreift
Rayé bleu/blanc
A strisce blu e bianche
Blauw/wit gestreept
AMP REM
ANT
Light blue
Hellblau
Bleu ciel
Azzurro
Hemelsblauw
Max. supply current 0,3 A
max. Versorgungsstrom 0,3 A
Courant max. fourni 0,3 A
Alimentazione massima fornita 0,3 A
Max. voedingsstroom 0,3 A
from the car's power connector
vom Stromanschluß des Fahrzeugs
du connecteur d'alimentation de la voiture
dal connettore di alimentazione dell'auto
van de autovoedingsstekker
from the car's speaker connector
vom Lautsprecheranschluß des Fahrzeugs
du connecteur de haut-parleur de la voiture
dal connettore dei diffusori dell'auto
van de autoluidsprekerstekker
Positions 1, 2, 3 and 6 do not have pins.
An Position 1, 2, 3 und 6 befinden sich keine Stifte.
Les positions 1, 2, 3 et 6 ne comportent pas de broches.
La posizioni 1, 2, 3 e 6 non hanno piedini.
De posities 1, 2, 3 en 6 hebben geen pins.
Negative polarity positions 2, 4, 6, and 8 have striped cords.
An den negativ gepolten Positionen (2, 4, 6 und 8) befinden sich gestreifte Adern.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
La posizioni a polarità negativa 2, 4, 6 e 8 hanno cavi rigati.
De negatieve posities 2, 4, 6 en 8 hebben gestreepte kabels.
* Note for the aerial connecting
If your car aerial is an ISO (International Organization for Standardization) type, use the supplied adaptor ⑦ to connect it.
First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
* Hinweis zum Anschließen der Antenne
Wenn Ihre Fahrzeugantenne der ISO-Norm (ISO = International Organization for Standardization - Internationale Normungsorganisation) entspricht, schließen Sie sie mit Hilfe des mitgelieferten Adapters ⑦ an.
Verbinden Sie zuerst die Fahrzeugantenne mit dem mitgelieferten Adapter, und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
* Remarque sur le raccordement de l'antenne
Si votre antenne de voiture est de type ISO (International Organization for Standardization - organisation internationale de normalisation), utilisez l'adaptateur fourni ⑦ pour le raccorder.
Raccordez d'abord l'antenne de voiture à l'adaptateur fourni et, ensuite, à la prise d'antenne de l'appareil principal.
* Nota per il collegamento dell'antenna
Se l'antenna della macchina è di tipo ISO (International Organization Standardization), utilizzare l'adattatore ⑦ in dotazione per collegarla.
Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
* Opmerking bij de antenne-aansluiting
Indien uw wagen is uitgerust met een antenne van het type ISO (Internationel Organisation for Standardization), moet u die aansluiten met behulp van de meegeleverde adaptor ⑦.
Sluit eerst de auto-antenne aan op de meegeleverde adaptor en vervolgens de antennestekker op het hoofdtoestel.

Parts list (1)

The numbers in the list are keyed to those in the instructions.

Caution
Handle the bracket ① carefully to avoid injuring your fingers.



Cautions

- This unit is designed for negative earth 12 V DC operation only.
- Do not get the wires under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the power connecting cord (not supplied) to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth wires to a common earth point.**
- Be sure to insulate any loose unconnected wires with electrical tape for safety.

Notes on the power supply cord (yellow)

- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Power connection

Power connectors may vary depending on the car. Check your car's power connector diagram to make sure the connections match correctly. There are two basic types. You may need to switch the positions of the jump connector. Before connecting the unit to the car's power supply, be sure to match the position of the jump connector to the car's pin order. If the power connector of your car does not match the connector on the unit, use the connector (not supplied). If you have any questions or problems connecting your unit that are not covered in this manual, please consult the car dealer.

WARNING

Shifting the fuse
Check the pin position of the power connector of the car with the table on the below. If positions 4 and 7 are reversed, remove the fuse and shift it to the lower position as shown in the illustration.

Connection example (2)

Notes (2)-A)

- ***Be sure to connect the earth cord before connecting the amplifier.***
- ***If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.***

Tip (2)-B-C)
For connecting two or more changers, the source selector XA-C30 (optional) is necessary.

Connection diagram (3)

A To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

B To the interface cable of a car telephone

Warning
If you have a power aerial without a relay box, connecting this unit with the power connecting cord (not supplied) may damage the aerial.

Notes on the control leads

- ***The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the AF (Alternative Frequency), TA (Traffic Announcement) function.***
- ***When your car has built-in FM/MW/LW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.***
- ***A power aerial without a relay box cannot be used with this unit.***

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection

- ***Before connecting the speakers, turn the unit off.***
- ***Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.***
- ***Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.***
- ***Do not attempt to connect the speakers in parallel.***
- ***Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.***

Telleliste (1)

Die Nummern in der Liste sind dieselben wie im Erläuterungstext.

Sicherheitshinweis
Seien Sie beim Umgang mit der Halterung ① vorsichtig, damit Sie sich nicht die Hände verletzen.

Vorsicht

- Dieses Gerät ist ausschließlich für den Betrieb bei 12 V Gleichstrom (negative Erdung) bestimmt.
- Achten Sie darauf, daß die Kabel nicht unter einer Schraube oder zwischen beweglichen Teilen wie z. B. in einer Sitzschiene eingeklemmt werden.
- Schalten Sie, bevor Sie irgendwelche Anschlüsse vornehmen, die Zündung des Fahrzeugs aus, um Kurzschlüsse zu vermeiden.
- Verbinden Sie das Stromversorgungskabel (nicht mitgeliefert) mit dem Gerät und den Lautsprechern, bevor Sie es mit dem Hilfsstromanschluß verbinden.
- **Schließen Sie alle Erdungskabel an einen gemeinsamen Massepunkt an.**
- Aus Sicherheitsgründen müssen alle losen, nicht angeschlossenen Drähte mit Isolierband abisoliert werden.

Hinweise zum Stromversorgungskabel (gelb)

- Wenn Sie dieses Gerät zusammen mit anderen Stereokomponenten anschließen, muß der Autostromkreis, an den die Geräte angeschlossen sind, eine höhere Leistung aufweisen als die Summe der Sicherungen der einzelnen Komponenten.
- Wenn kein Autostromkreis eine so hohe Leistung aufweist, schließen Sie das Gerät direkt an die Batterie an.

Stromanschluß

Die Stromanschlüsse verschiedener Fahrzeuge können sich voneinander unterscheiden. Überprüfen Sie anhand des Stromanschluß-Schaltplans des Fahrzeugs, ob die Anschlüsse übereinstimmen. Es gibt zwei Grundtypen. Sie müssen möglicherweise die Position des Überbrückungsanschlusses umschalten. Bevor Sie das Gerät an die Stromversorgung des Fahrzeugs anschließen, stellen Sie sicher, daß die Position des Überbrückungsanschlusses mit der Stiftbelegung des Fahrzeugs übereinstimmt. Wenn der Stromanschluß des Fahrzeugs nicht mit dem Anschluß am Gerät übereinstimmt, verwenden Sie Anschluß (nicht mitgeliefert). Sollten beim Anschließen des Geräts Fragen oder Probleme auftreten, auf die in dieser Anleitung nicht eingegangen wird, wenden Sie sich bitte an Ihren Autohändler.

ACHTUNG

Versetzen der Sicherung
Vergleichen Sie die Stiftposition des Stromanschlusses im Fahrzeug mit der folgenden Tabelle. Sind die Stiftpositionen 4 und 7 umgekehrt, entfernen Sie die Sicherung und bringen sie, wie in der Abbildung gezeigt, statt dessen unten an.

Anschlußbeispiel (2)

Hinweise (2)-A)

- ***Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.***
- ***Wenn Sie einen gesondert erhältlichen Endverstärker anschließen und den integrierten Verstärker nicht benutzen, wird der Signalton deaktiviert.***

Tip (2)-B-C)
Zum Anschließen von zwei oder mehr CD/MD-Wechslern wird der gesondert erhältliche Signalquellenwähler XA-C30 benötigt.

Anschlußdiagramm (3)

A An AMP REMOTE IN des gesondert erhältlichen Endverstärkers
Dieser Anschluß ist ausschließlich für Verstärker gedacht. Schließen Sie nichts anderes daran an. Andernfalls kann das Gerät beschädigt werden.

B An Schnittstellenkabel eines Autotelefons

Warnung
Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit dem Stromversorgungskabel (nicht mitgeliefert) die Antenne beschädigt werden.

Hinweise zu den Steuerleitungen

- ***Die Motorantennen-Steuerleitung (blau) liefert + 12 V Gleichstrom, wenn Sie den Tuner einschalten oder die AF- (Alternativfrequenzsuche) oder die TA-Funktion (Verkehrsdurchsagen) aktivieren.***
- ***Wenn das Fahrzeug mit einer in der Heck-/Seitenfensterscheibe integrierten FM/MW/LW-Antenne ausgestattet ist, schließen Sie die Motorantennen-Steuerleitung (blau) oder die Zubehörstromversorgungsleitung (rot) an den Stromversorgungsanschluß des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.***
- ***Es kann nur eine Motorantenne mit Relaiskästchen angeschlossen werden.***

Stromversorgung des Speichers
Wenn das gelbe Stromversorgungskabel angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

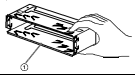
Hinweise zum Lautsprecheranschluß

- ***Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.***
- ***Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.***
- ***Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis, und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.***
- ***Versuchen Sie nicht, Lautsprecher parallel anzuschließen.***
- ***An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da diese sonst beschädigt werden können.***

Liste des composants (1)

Les numéros de l'illustration correspondent à ceux des instructions.

Avertissement
Manipulez précautionneusement le support ① pour éviter de vous blesser aux doigts.



Précautions

- Cet appareil est conçu pour fonctionner sur courant continu de 12 V avec masse négative.
- Evitez de fixer des vis sur les câbles ou de coincer ceux-ci dans des pièces mobiles (par exemple, armature de siège).
- Avant d'effectuer des raccordements, éteignez le moteur pour éviter les courts-circuits.
- Branchez le cordon d'alimention (non fourni) sur l'appareil et les haut-parleurs avant de le brancher sur le connecteur d'alimentation auxiliaire.
- **Rassemblez tous les fils de terre en un point de masse commun.**
- Veillez à isoler tout fil ou câble non connectés avec du chatterion approprié.

Notes sur le cordon d'alimentation (jaune)

- Lorsque cet appareil est raccordé à d'autres éléments stéréo, la valeur nominale des circuits de la voiture raccordée doit être supérieure à la somme des fusibles de chaque élément.
- Si aucun circuit de la voiture n'est assez puissant, raccordez directement l'appareil à la batterie.

Raccordement de l'alimentation de l'alimentation

Les connecteurs d'alimentation peuvent varier suivant le modèle de la voiture. Vérifiez le diagramme du connecteur d'alimentation de votre voiture pour vérifier si les connexions correspondent. On distingue deux types de base. Il se peut que vous deviez commuter les positions du cavalier. Avant de raccorder l'appareil à l'alimentation de la voiture, faites correspondre la position du cavalier à l'ordre des broches de la voiture. Si le connecteur d'alimentation de votre véhicule ne correspond pas au connecteur de l'appareil, utilisez le connecteur (non fourni). Si vous avez des questions ou des problèmes au sujet du raccordement de votre appareil qui ne sont pas abordés dans le présent mode d'emploi, consultez votre concessionnaire automobile.

AVERTISSEMENT

Déclage du fusible
Vérifiez la position des broches du connecteur d'alimentation de la voiture dans le tableau ci-dessous. Si les positions 4 et 7 sont inversées, retirez le fusible et décalez-le sur la position inférieure comme indiqué dans l'illustration.

Exemple de raccordement (2)

Remarques (2)-A)

- ***Raccordez d'abord le fil de masse avant de connecter l'amplificateur.***
- ***Si vous raccordez un amplificateur de puissance indépendent et si vous n'utilisez pas l'amplificateur intégré, le bip sera désactivé.***

Conseil (2)-B-C)
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (optionnel) est indispensable.

Schémas de raccordement (3)

A Au niveau du AMP REMOTE IN d'un amplificateur de puissance facultatif
Cette connexion estde seulement pour les amplificateurs. La raccordement à tout autre système peut endommager l'appareil.

B Vers le cordon de liaison d'un téléphone de voiture

Avertissement
Si vous disposez d'une antenne électrique sans relais, le raccordement de cet appareil avec le cordon d'alimentation (non fourni) peut endommager l'antenne.

Remarques sur les fils de contrôle

- ***La sortie de commande de l'antenne (bleu) fournit du courant continu de +12 V lorsque vous allumez le sélecteur de canaux ou lorsque vous activez la fonction TA (informations circulation) ou AF (fréquence alternative).***
- ***Lorsque votre voiture est équipée d'une antenna FM/MW/LW intégrée dans la vitre arrière/latérale, raccordez la sortie de commande de l'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) au bornier de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.***
- ***Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.***

Remordement pour la sauvegarde de la mémoire
Lorsque le fil d'entrée d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si le clé de contact est sur la position d'arrêt.

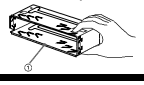
Remarques sur le raccordement des haut-parleurs

- ***Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.***
- ***Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.***
- ***Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.***
- ***Ne pas tenter de raccorder les haut-parleurs en parallèle.***
- ***Ne pas connecter d'enceintes acoustiques actives (avec amplificateurs intégrés) aux bornes d'enceinte de cet appareil, pour éviter d'endommager les enceintes. Veiller à raccorder des enceintes passives.***

Elenco dei componenti (1)

I numeri nella lista corrispondono a quelli riportati nelle istruzioni.

Attenzione
Maneggiare la staffa ① con cautela per evitare di ferirsi le mani.



Attenzione

- Questo apparecchio è stato progettato per l'uso solo a 12 V CC con massa negativa.
- Evitare che i cavi rimangano bloccati da una vite o incastrati nelle parti mobili (ad esempio nelle guide scorrevoli dei sedili).
- Prima di effettuare i collegamenti, spegnere il motore dell'automobile onde evitare di causare cortocircuiti.
- Collegare il cavo di collegamento dell'alimentazione (non in dotazione) all'apparecchio e ai diffusori prima di collegarlo al connettore di alimentazione ausiliare.
- **Portare tutti i cavi di massa a un punto di massa comune.**
- Per sicurezza, assicurarsi di isolare qualsiasi cavo non collegato mediante apposito nastro.

Note sul cavo di alimentazione (giallo)

- Se questo apparecchio viene collegato in combinazione con altri componenti stereo, la potenza nominale dei circuiti dell'automobile deve essere superiore a quella prodotta dalla somma dei fusibili di ciascun componente.
- Se la potenza nominale dei circuiti dell'automobile non è sufficiente, collegare l'apparecchio direttamente alla batteria.

Collegamento con l'alimentazione

I connettori di alimentazione possono essere diversi a seconda del tipo di automobile. Controllare il diagramma relativo al connettore di alimentazione della propria auto per assicurarsi che i collegamenti corrispondano perfettamente. Esistono due principali tipi di connettore di alimentazione. Potrebbe essere necessario cambiare le posizioni del connettore ponticello. Prima di collegare l'apparecchio all'alimentazione dell'auto, assicurarsi di far corrispondere la posizione del connettore ponticello all'ordine dei piedini dell'auto. Se il connettore di alimentazione dell'auto non è compatibile con quello dell'apparecchio, utilizzare il connettore (non in dotazione). In caso di domande o problemi relativi al collegamento dell'apparecchio non contemplati in questo manuale, contattare il rivenditore dell'automobile.

AVVERTENZA

Come spostare il fusibile
Controllare la posizione dei piedini del connettore di alimentazione dell'auto utilizzando la tabella in basso. Se i piedini 4 e 7 sono invertiti, rimuovere il fusibile e spostarlo nella posizione più in basso come mostrato nella figura.

Esempi di collegamento (2)

Note (2)-A)

- ***Assicurarsi di collegare il cavo di terra prima di collegare l'apparecchio all'amplificatore.***
- ***Se si effettua il collegamento di un amplificatore di potenza opzionale e l'amplificatore incorporato non viene utilizzato, il segnale acustico è disattivo.***

Suggerimento (2)-B-C)
Per collegare due o più cambia CD/MD, si deve utilizzare il selettore di fonte XA-C30 (opzionale).

Schema di collegamento (3)

A A AMP REMOTE IN di un amplificatore di potenza opzionale
Questo collegamento è previsto esclusivamente agli amplificatori. Non collegare un tipo di sistema diverso onde evitare di causare danni all'apparecchio.

B Al cavo interfaccia di un telefono per auto

Avvertenza
Quando si collega l'apparecchio con il cavo di alimentazione (non in dotazione), si potrebbe danneggiare l'antenna elettrica se questa non dispone di scatola a relè.

Note sui cavi di controllo

- ***Il cavo (blu) di controllo dell'antenna elettrica fornisce alimentazione pari a +12 V CC quando è attivo il sintonizzatore o la funzione TA (traffico) o AF (frequenza alternativa).***
- ***Se l'automobile è dotata di antenna FM/MW/LW incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione ausiliaria al terminale di alimentazione del preamplificatore dell'antenna esistente. Per ulteriori informazioni, consultare il proprio fornitore.***
- ***Non è possibile utilizzare un'antenna elettrica senza scatola a relè con questo apparecchio.***

Collegamento per la conservazione della memoria
Quando il cavo di ingresso alimentazione giallo è collegato, viene sempre fornita alimentazione al circuito di memorie anche quando la chiavetta di accensione è spenta.

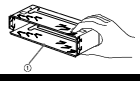
Note sul collegamento dei diffusori

- ***Prima di collegare i diffusori spegnere l'apparecchio.***
- ***Utilizzare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori potrebbero venire danneggiati.***
- ***Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.***
- ***Non collegare i diffusori in parallelo.***
- ***Non collegare alcun diffusore attivo (con amplificatore incorporato) ai terminali dei diffusori dell'apparecchio perché si potrebbero danneggiare i diffusori stessi. Assicurarsi di collegare diffusori passivi a questi terminali.***

Onderdelenlijst (1)

De nummers in de afbeelding verwijzen naar die in de montage-aanwijzingen.

Opgelet
Houd de beugel ① voorzichtig vast zodat u uw vingers niet verwondt.



Let op!

- Dit apparaat is ontworpen voor gebruik op gelijkstroom van een 12 Volts auto-accu, negatief geaard.
- Zorg ervoor dat de draden niet onder een schroef of tussen bewegende onderdelen (b.v. zetelrail) terechtkomen.
- Alvorens aansluitingen te verrichten moet u het contact afzetten om kortsluiting te vermijden.
- Sluit het netsnoer (niet meegeleverd) aan op het toestel en de luidsprekers voordeur u het op de hulpvoedingsaansluiting aansluit.
- **Sluit alle aarddraden op een gemeenschappelijk aardpunt aan.**
- Voorzie niet aangesloten draden om veiligheidsredenen altijd van isolatietape.

Opmerkingen bij de voedingskabel (geel)

- Wanneer u dit toestel aansluit samen met andere componenten, moet het vermogen van de aangesloten autostroomkring groter zijn dan de som van de de zekeringen van elke component afzonderlijk.
- Wanneer het vermogen ontoereikend is, moet u het toestel rechtstreeks aansluiten op de batterij.

Voedingsaansluiting

Voedingsstekkers kunnen verschillen van auto tot auto. Controleer het voedingsschema van uw auto om na te gaan of de aansluitingen kloppen.
Er zijn twee basistypes. Eventueel moeten de posities van de jumpstekker worden omgewisseld. Alvorens het toestel aan te sluiten op de voeding van de auto, moet u controleren of de jumpstekkerpositie overeenkomt met de pinvolgorde. Gebruik stekker (niet meegeleverd) indien de voedingsstekker van uw auto niet past op de stekker van het toestel. Voor alle vragen en problemen in verband met het toestel kunt u terecht bij uw autodealer.

WAARSCHUWING

Verplaatsen van de zekering
Vergelijk de pinpositie van de voedingsstekker in de auto met de onderstaande tabel. Als de posities 4 en 7 omgekeerd zijn, moet u de zekering verwijderen en deze in de onderste positie aanbrengen zoals aangegeven in de afbeelding.

Voorbeeldaansluitingen (2)

Opmerkingen (2)-A)

- ***Sluit eerst de massakabel aan alvorens de versterker aan te sluiten.***
- ***Wanneer u een los verkrijgbare vermogensversterker aansluit en de ingebouwde versterker niet gebruikt, wordt de pieptoon uitgeschakeld.***

Tip (2)-B-C)
Om twee of meer CD/MD-wisselaars aan te sluiten, hebt u de geluidsbronkiezer XA-C30 (optioneel) nodig.

Aansluitschema (3)

A Naar AMP REMOTE IN van een los verkrijgbare vermogensversterker
Deze aansluiting is alleen bedoeld voor versterkers. Door een ander gebruik van te sluiten kan het toestel worden beschadigd.

B Naar het interface-snoer van een autotelefoon

Opgelet
Indien u beschikt over een elektrische antenne zonder relaiskast, kan de antenne worden beschadigd wanneer u dit toestel aansluit met behulp van de voedingskabel (niet meegeleverd).

Opmerking betreffende de aansluitsnoeren

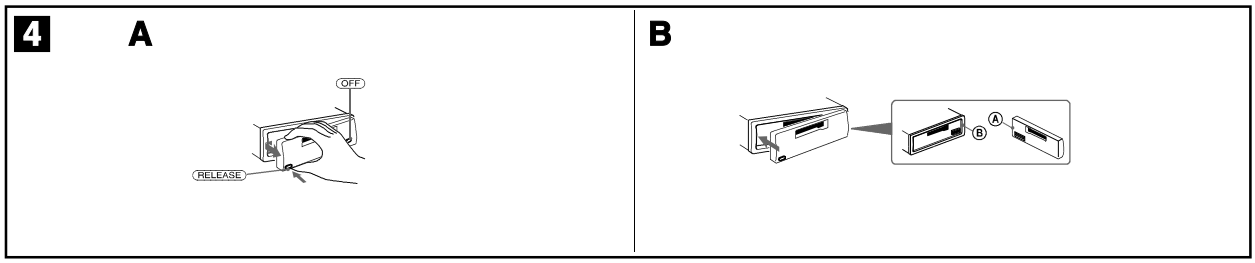
- ***De antennevoedingskabel (blauw) levert +12 V gelijkstroom wanneer u de tuner aanschakelt of de AF (Alternative Frequency), TA (Traffic Announcement) functie activeert.***
- ***Wanneer uw auto is uitgerust met een FM/MW/LW-antenne in de achterruit/zijvenruit, moet u de antennevoedingskabel (blauw) of de hulpvoedingskabel (rood) aansluiten op de voedingsingang van de bestaande antenneversterker. Raadpleeg uw dealer voor meer details.***
- ***Met dit apparaat is het niet mogelijk een automatische antenne zonder relaishuis te gebruiken.***

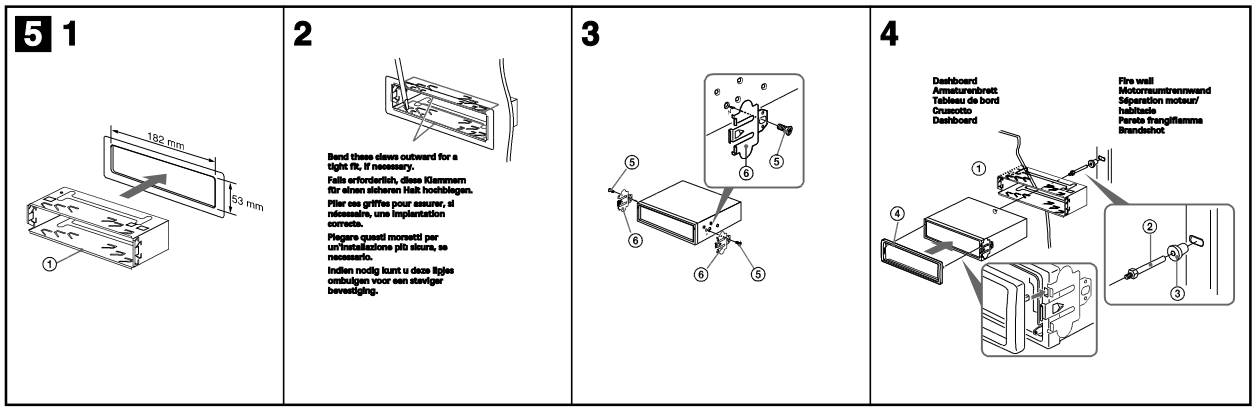
Instandhouden van het getwogen
Zolang de gele stroomdraad is aangesloten, blijft de stroomvoorziening van het getwogen intact, ook wanneer het contact van de auto wordt uitgeschakeld.

Opmerkingen betreffende het aansluiten van de luidsprekers

- ***Zorg dat het apparaat is uitgeschakeld, alvorens de luidsprekers aan te sluiten.***
- ***Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.***
- ***Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter en linker luidspreker niet op elkaar aan.***
- ***Probeer nooit de luidsprekers parallel aan te sluiten.***
- ***Sluit geen actieve luidsprekers (met ingebouwde versterkers) aan op de luidsprekeraansluiting van dit apparaat. Dit zal leiden tot beschadiging van het toestel. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.***

MC-Service





Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperature, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment
Adjust the mounting angle to less than 20°.

How to detach and attach the front panel (4)

Before installing the unit, detach the front panel.

4-A To detach
Before detaching the front panel, be sure to press (OFF). Press (RELEASE), then slide the front panel a little to the left, and pull it off towards you.

4-B To attach
Attach part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push the left side into position until it clicks.

Mounting example (5)

Installation in the dashboard

Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.
When you press (OFF) only momentarily, the clock display does not turn off and this causes battery wear.

RESET button

When the installation and connections are completed, be sure to press the RESET button with a ball-point pen, etc.

Vorsichtsma nahmen

- Wählen Sie den Einbauort sorgfältig so aus, daß das Gerät beim Fahren nicht hinderlich ist.
- Bauen Sie das Gerät so ein, daß es keinen hohen Temperaturen (keinem direkten Sonnenlicht, keiner Warmluft von der Heizung), keinem Staub, keinem Schmutz und keinen starken Vibrationen ausgesetzt ist.
- Für eine sichere Befestigung verwenden Sie stets nur die mitgelieferten Montageteile.

Hinweis zum Montagewinkel
Das Gerät sollte in einem Winkel von weniger als 20° montiert werden.

Abnehmen und Anbringen der Frontplatte (4)

Nehmen Sie die Frontplatte vor dem Einbau des Geräts ab.

4-A Abnehmen
Schalten Sie das Gerät vor dem Abnehmen der Frontplatte unbedingt mit (OFF) aus. Drücken Sie (RELEASE), schieben Sie anschließend die Frontplatte ein wenig nach links, und ziehen Sie sie auf sich zu heraus.

4-B Anbringen
Setzen Sie Teil Ⓐ der Frontplatte wie in der Abbildung dargestellt an Teil Ⓑ des Geräts an, und drücken Sie die linke Seite der Frontplatte an, bis sie mit einem Klicken einrastet.

Montagebeispiel (5)

Installation im Armaturenbrett

Warnhinweis zur Installation des Ger ts in einem Auto mit Z ndschlo ohne Zubeh rposition ACC oder I

Drücken Sie am Gerät unbedingt zwei Sekunden lang (OFF), um die Uhrzeitanzeige auszuschalten, nachdem Sie den Motor ausgeschaltet haben.
Wenn Sie (OFF) nur kurz drücken, wird die Uhrzeitanzeige nicht ausgeschaltet, und der Autobatterie wird Strom entzogen.

Taste RESET

Nach der Installation und dem Anschluß muß die Taste RESET mit einem Kugelschreiber o. ä. gedrückt werden.

Pr cautions

- Choisir soigneusement l'emplacement de l'installation afin que l'appareil ne gêne pas la conduite normale du véhicule.
- Eviter d'installer l'appareil dans un endroit exposé à des températures élevées, comme en plein soleil ou à proximité d'une bouche d'air chaud, ou à de la poussière, saleté ou vibrations violentes.
- Pour garantir un montage sûr, n'utiliser que le matériel fourni.

R glage de l angle de montage
Ajuster l'inclinaison à un angle inférieur à 20°.

Retrait et pose de la fa ade (4)

Avant d'installer l'appareil, déposer la façade.

4-A Pour la retirer
Avant de déposer la façade, ne pas oublier d'appuyer sur (OFF). Appuyer ensuite sur (RELEASE), puis faire glisser la façade légèrement vers la gauche et enlever la façade en tirant à soi.

4-B Pour la fixer
Fixez la partie Ⓐ de la façade sur la partie Ⓑ de l'appareil, comme indiqué sur l'illustration, puis appuyez sur le côté gauche jusqu'au déclic.

Exemple de montage (5)

Installation dans le tableau de bord

Avertissement en cas d installation dans une voiture dont le contact ne comporte pas de position ACC (accessoires)

Appuyez sur la touche (OFF) de l'appareil pendant deux secondes pour désactiver l'affichage de l'horloge après avoir coupé le moteur.
Si vous n'appuyez que brièvement sur (OFF), l'affichage de l'horloge ne disparaît pas, ce qui provoque la décharge de la batterie.

Touche RESET

Quand l'installation et les raccordements sont terminés, appuyer sur la touche RESET avec un stylo à bille, etc.

Precauzioni

- Scegliere con attenzione la posizione per l'installazione in modo che l'apparecchio non interferisca con le operazioni di guida del conducente.
- Evitare di installare l'apparecchio dove sia soggetto ad alte temperature, come alla luce solare diretta o al getto di aria calda dell'impianto di riscaldamento, o dove possa essere soggetto a polvere, sporco e vibrazioni eccessive.
- Utilizzare solo il materiale di montaggio in dotazione per un'installazione stabile e sicura.

Regolazione dell angolo di montaggio
Regolare l'angolo di montaggio in modo che sia inferiore a 20°.

Come rimuovere e reinserire il pannello anteriore (4)

Prima di installare l'apparecchio rimuovere il pannello anteriore.

4-A Per rimuoverlo
Prima di rimuovere il pannello anteriore, premere (OFF). Premere (RELEASE), quindi far scorrere leggermente il pannello anteriore verso sinistra e tirarlo verso di sé.

4-B Per reinserirlo
Applicare la parte Ⓐ del pannello anteriore alla parte Ⓑ dell'apparecchio come mostrato nell'illustrazione e premere il lato sinistro fino a sentire uno scatto.

Esempio di montaggio (5)

Installazione nel cruscotto

Informazioni importanti per quando si effettua l installazione su un auto sprovvista della posizione ACC sull'interruttore di accensione

Assicurarsi di premere (OFF) sull'apparecchio per due secondi per spegnere il display dell'orologio dopo che il motore è stato spento.
Se si preme (OFF) solo per un attimo, il display dell'orologio non si spegne causando in questo modo lo scaricamento della batteria.

Tasto RESET

Dopo avere terminato l'installazione e i collegamenti, assicurarsi di premere il tasto RESET con la punta di una penna a sfera, o simile.

Voorzorgsmaatregelen

- Kies de installatieplaats zorgvuldig zodat het toestel de bestuurder niet hindert tijdens het rijden.
- Installeer het apparaat niet op plaatsen waar het blootgesteld wordt aan hoge temperaturen, b.v. in direct zonlicht of bij de warme luchtstroom van de autoverwarming, aan sterke trillingen, of waar het in contact komt met veel stof of vuil.
- Gebruik voor het veilig en stevig monteren van het apparaat uitsluitend de bijgeleverde montage-onderdelen.

Maximale montagehoek
Installeer het apparaat nooit onder een hoek van meer dan 20° met het horizontale vlak.

Verwijderen en bevestigen van het afneembare voorpaneel (4)

Verwijder, alvorens met het installeren te beginnen, het afneembare voorpaneel.

4-A Verwijderen
Vergeet niet, voordat u het voorpaneel verwijdert, eerst op (OFF) te drukken. Druk vervolgens op de (RELEASE) toets, schuif het voorpaneel iets naar links en trek het naar u toe.

4-B Bevestigen
Breng deel Ⓐ van het voorpaneel aan op deel Ⓑ van het apparaat zoals afgebeeld en druk op de linkerzijde tot deze vastklikt.

Montagevoorbeeld (5)

Montage in het dashboard

Opgelet bij het monteren in een auto waarvan het contactslot geen ACC (accessory) stand heeft

Druk (OFF) op het toestel gedurende twee seconden in om de klokweergave uit te schakelen na het afzetten van de motor.
Indien u slechts even op (OFF) drukt, verdwijnt de tijdindicatie niet waardoor de batterij uitgeput raakt.

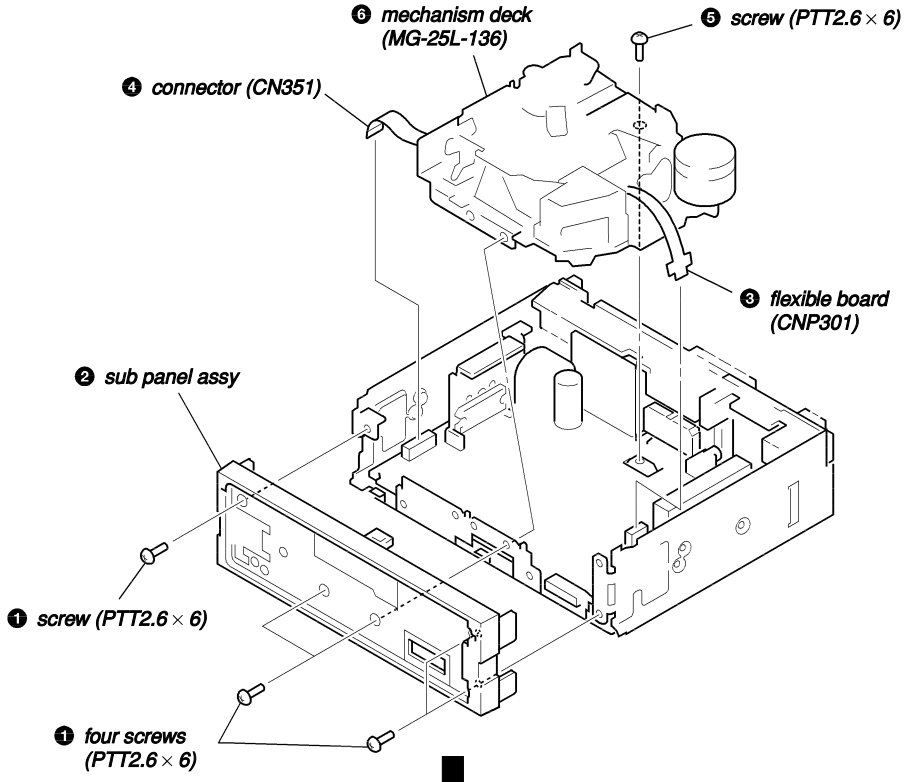
RESET-toets

Druk, nadat u het apparaat heeft geïnstalleerd en de aansluitingen heeft gemaakt, met een balpen of een ander puntig voorwerp op de RESET-toets.

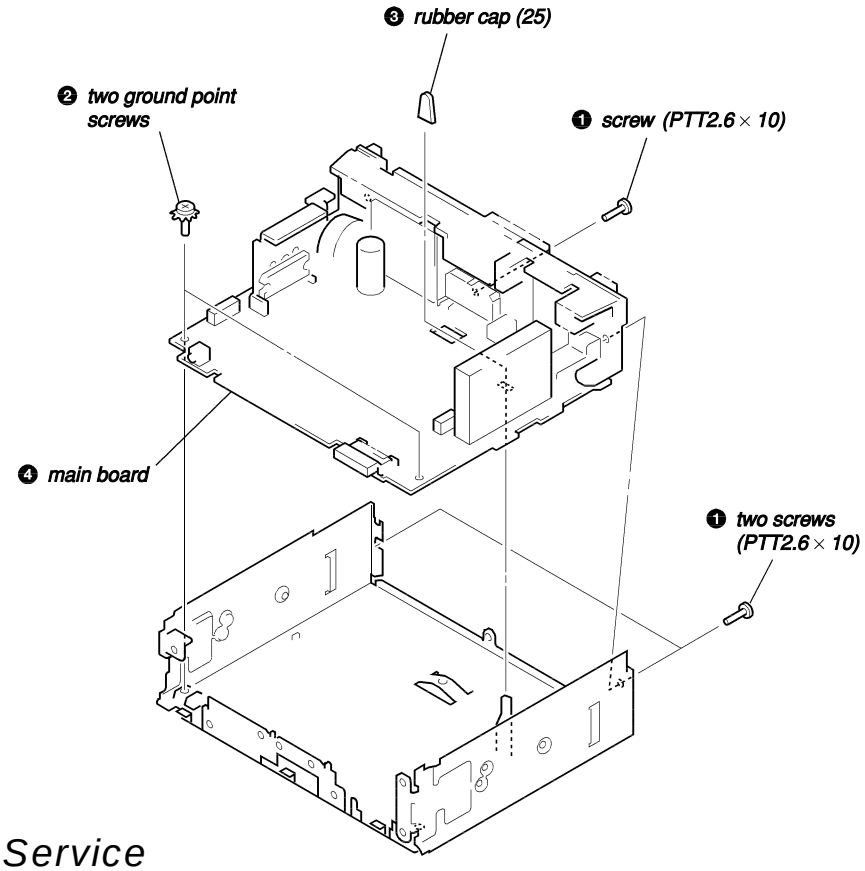
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

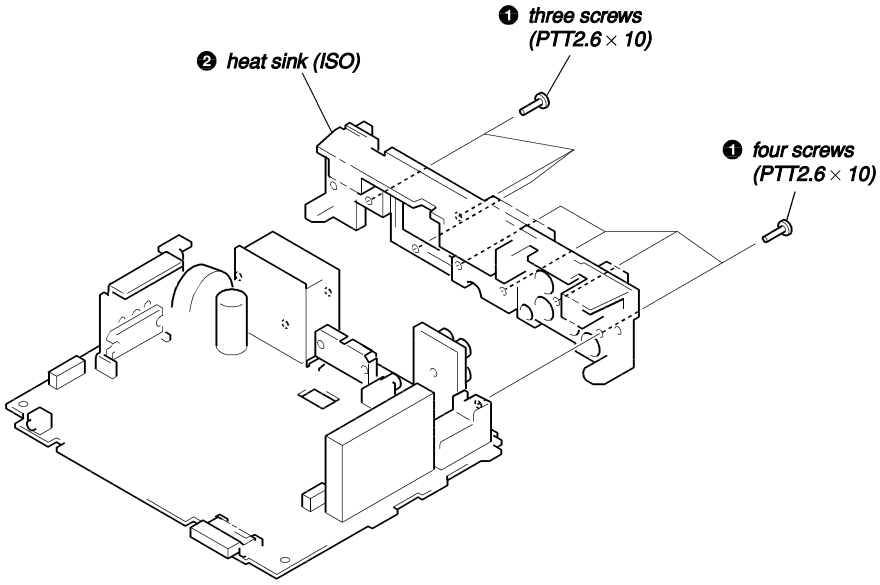
MECHANISM DECK (MG-25L-136)


❻ mechanism deck (MG-25L-136)
❺ screw (PTT2.6 × 6)
❹ connector (CN351)
❸ flexible board (CNP301)
❷ sub panel assy
❶ screw (PTT2.6 × 6)
❶ four screws (PTT2.6 × 6)

MAIN BOARD



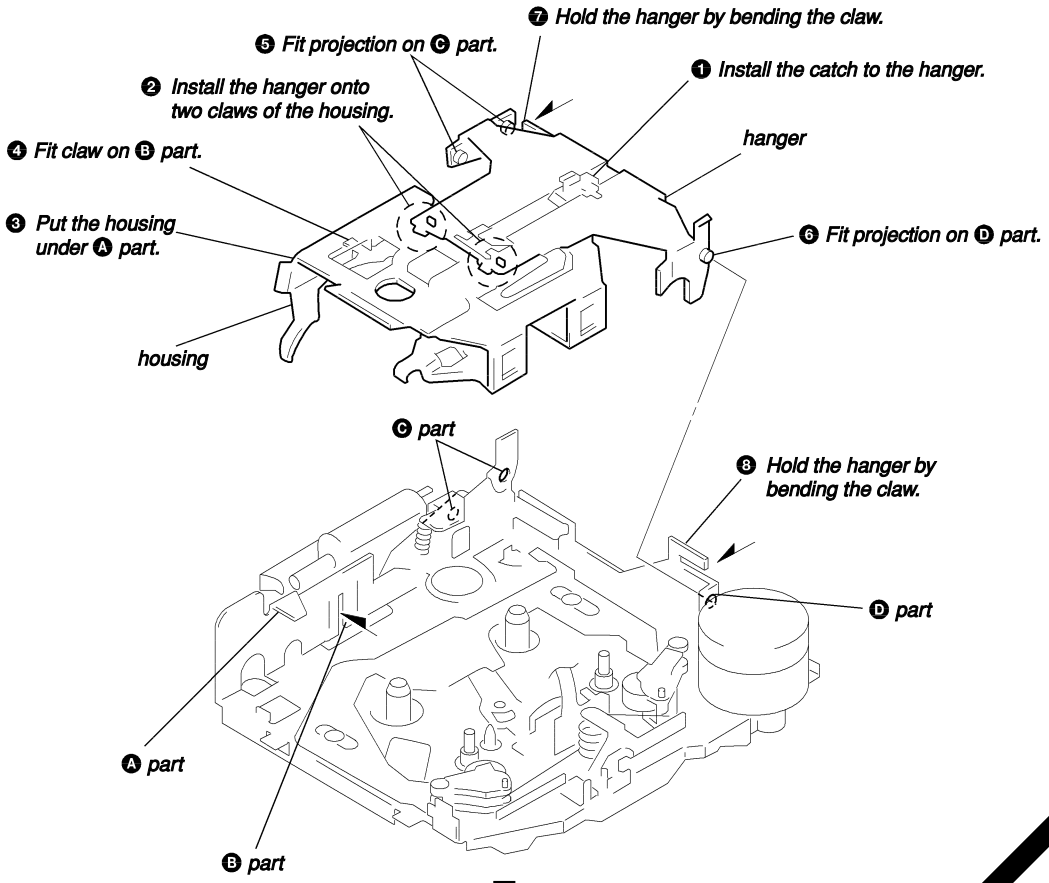
HEAT SINK (ISO)



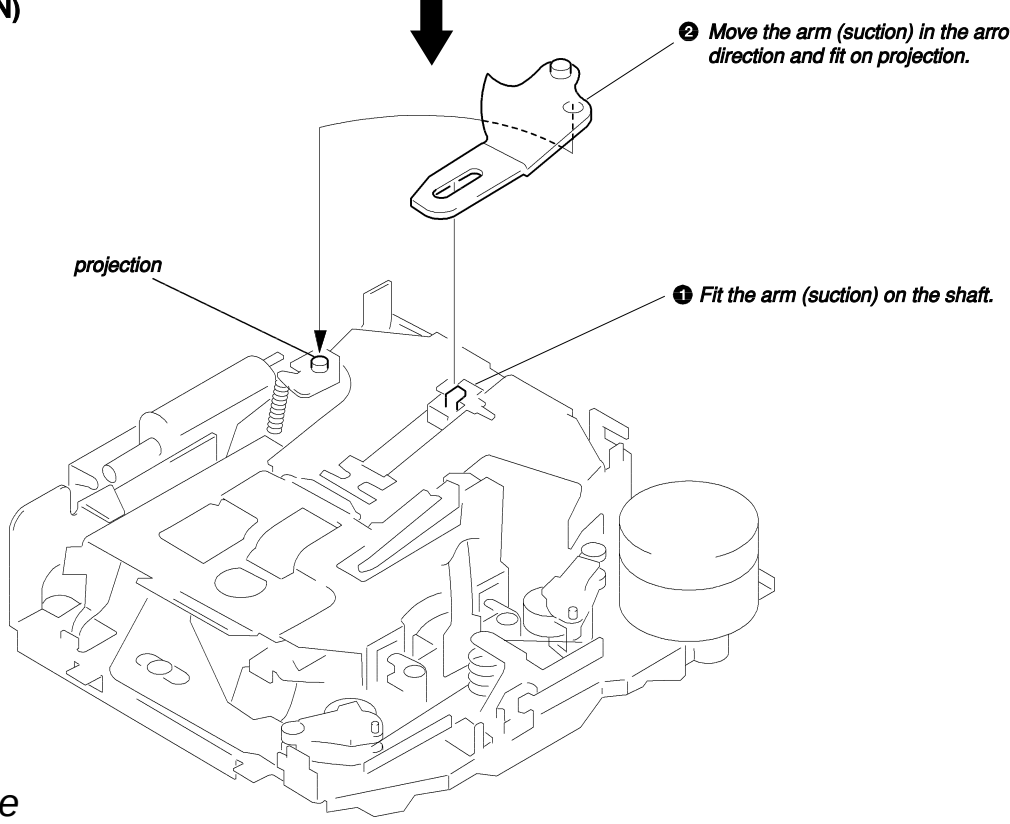
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note: Follow the assembly procedure in the numerical order given.

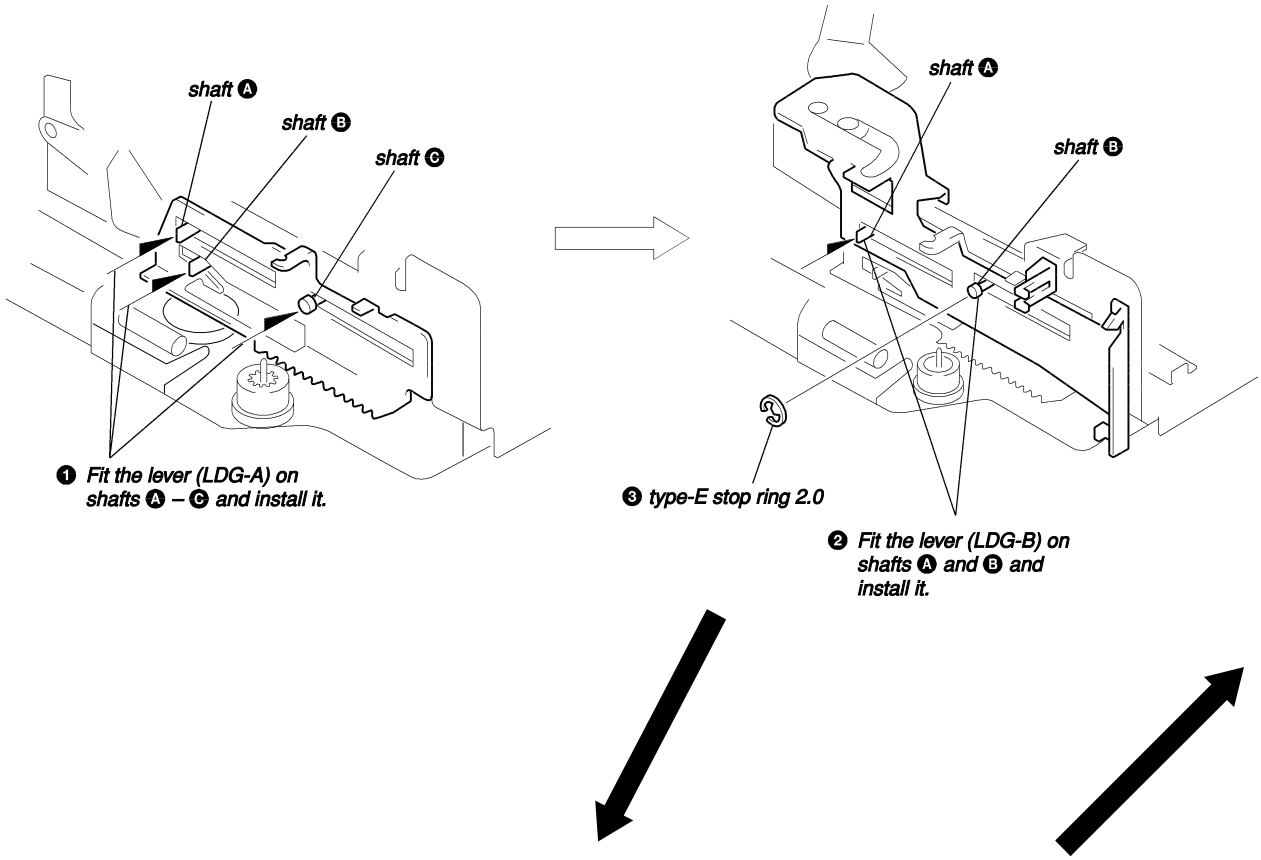
HOUSING


❼ Hold the hanger by bending the claw.
❺ Fit projection on Ⓒ part.
❶ Install the catch to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

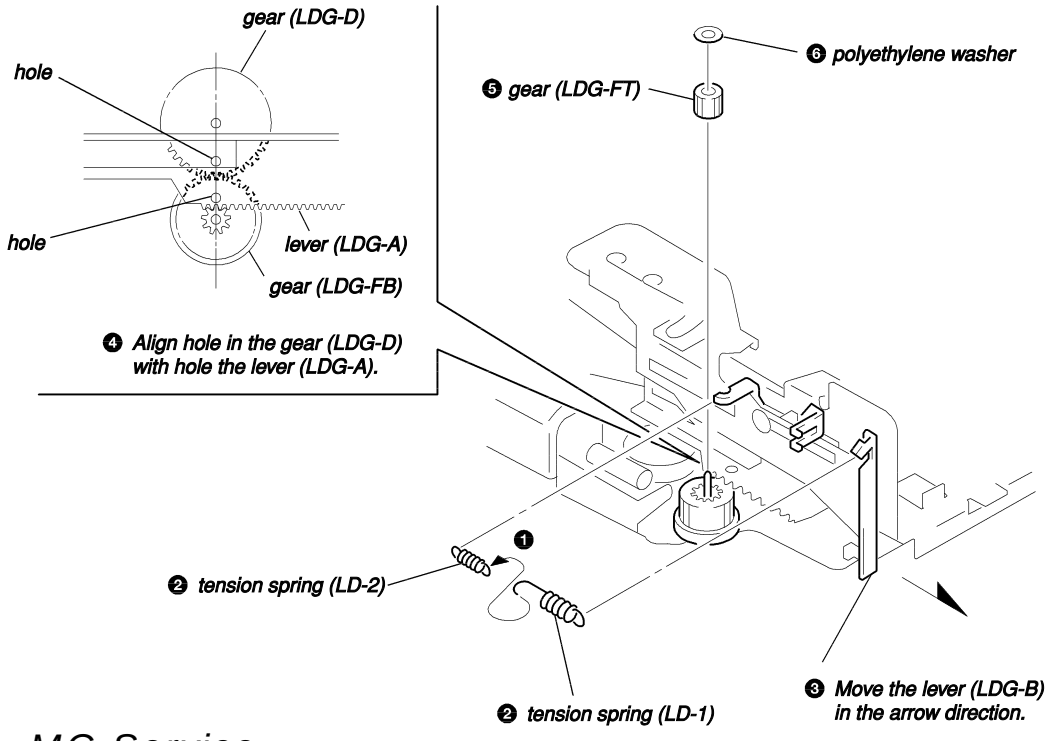
ARM (SUCTION)



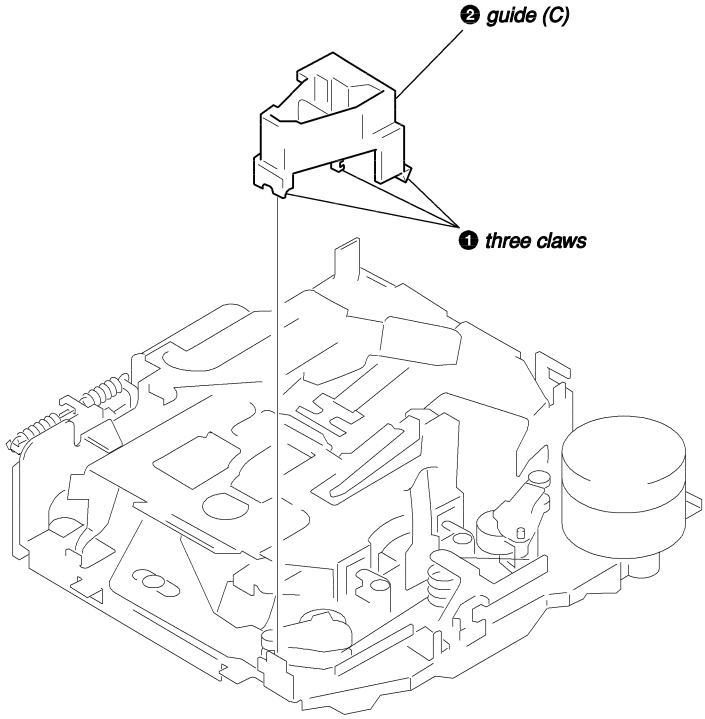
LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

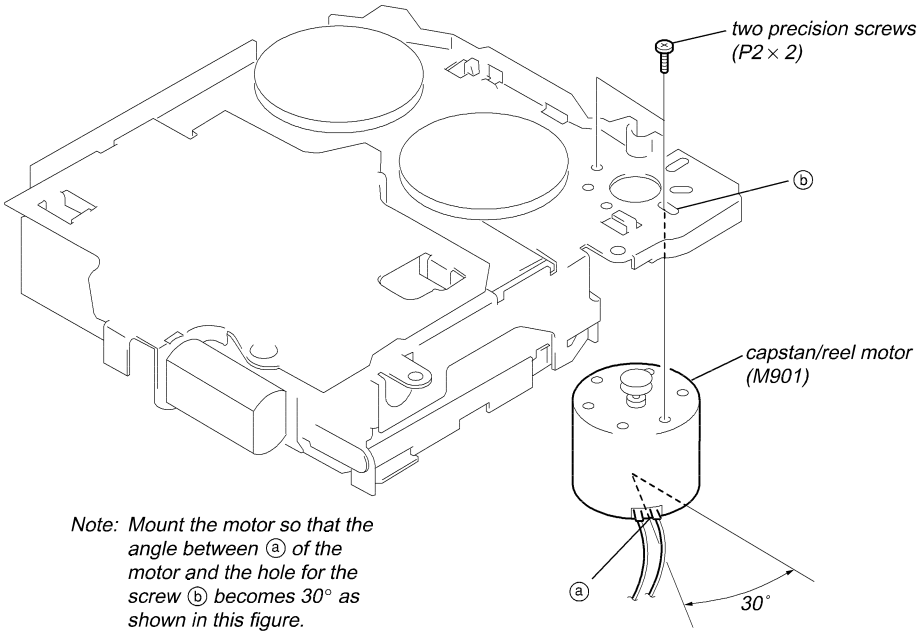
GEAR (LDG-FT)



GUIDE (C)



MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)



Note: Mount the motor so that the angle between ⓐ of the motor and the hole for the screw ⓑ becomes 30° as shown in this figure.

SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Forward Back Tension	CQ-102C	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
Reverse	CQ-102RC	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Reverse Back Tension	CQ-102RC	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
FF, REW	CQ-201B	5.89 – 19.61 mN•m (60 – 200 g•cm) (0.83 – 2.78 oz•inch)

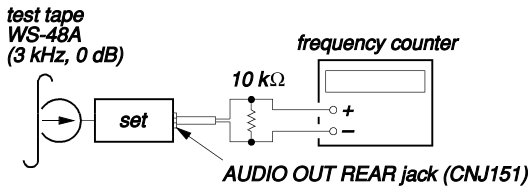
• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 60 g (more than 2.12 oz)
Reverse	CQ-403R	more than 60 g (more than 2.12 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION | 0 dB=0.775 V

Tape Speed Adjustment
Setting:



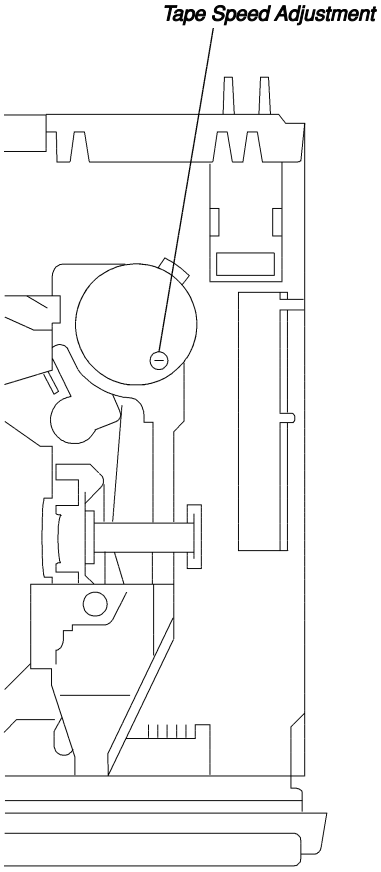
Procedure:
1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the frequency counter becomes 3,000 Hz.

Specification: Constant speed

Frequency counter
2,955 to 3,075 Hz

Adjustment Location:

– SET UPPER VIEW –



TUNER SECTION

Tuner section adjustments are done automatically in this set.

SECTION 6
DIAGRAMS

6-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

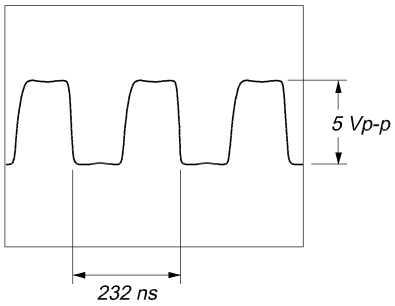
Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW/LW
  〈〈 〉〉 : TAPE PLAYBACK
  ＊ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : MW/LW
  ⇨ : TAPE PLAYBACK
  ⇨ : BUS AUDIO IN

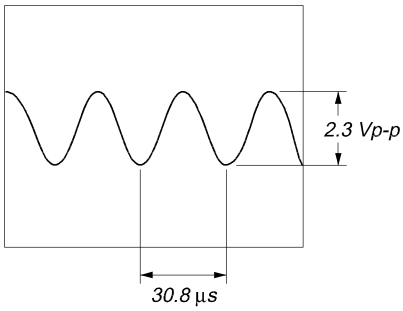
• Waveforms

– MAIN Board –

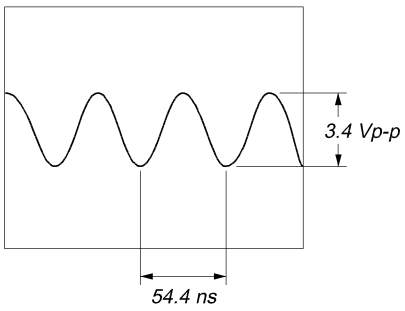
❶ IC51 ④ (OSCO)



❸ IC501 ⑯ (XOUT)

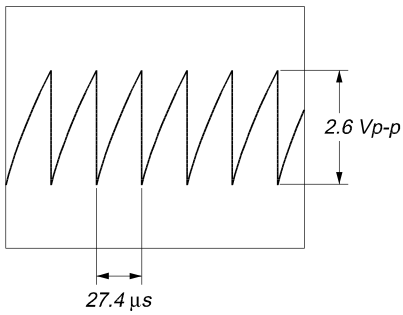


❷ IC501 ⑫ (OSCOUT)



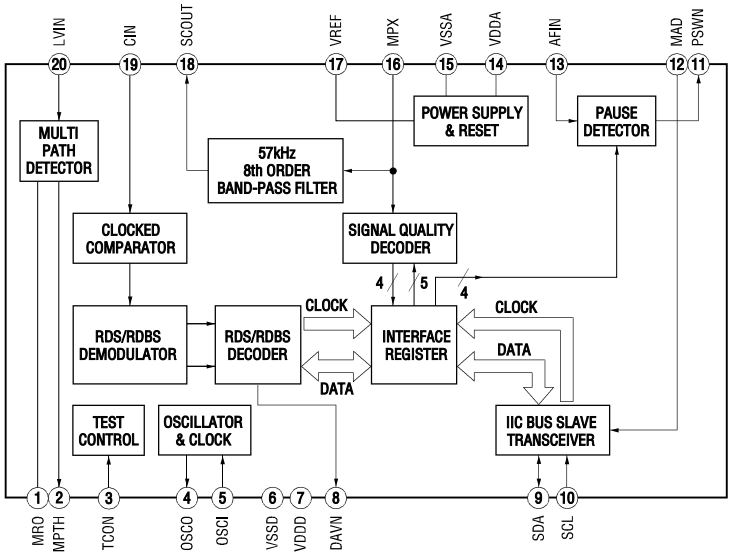
– KEY Board –

❹ IC901 ⑥⓪ (OSC)

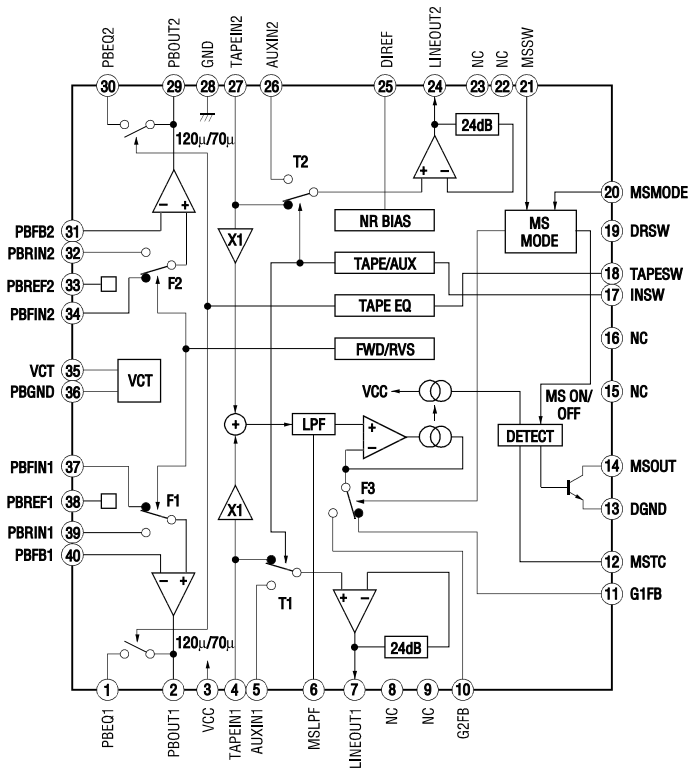


• **IC Block Diagrams**
– MAIN Board –

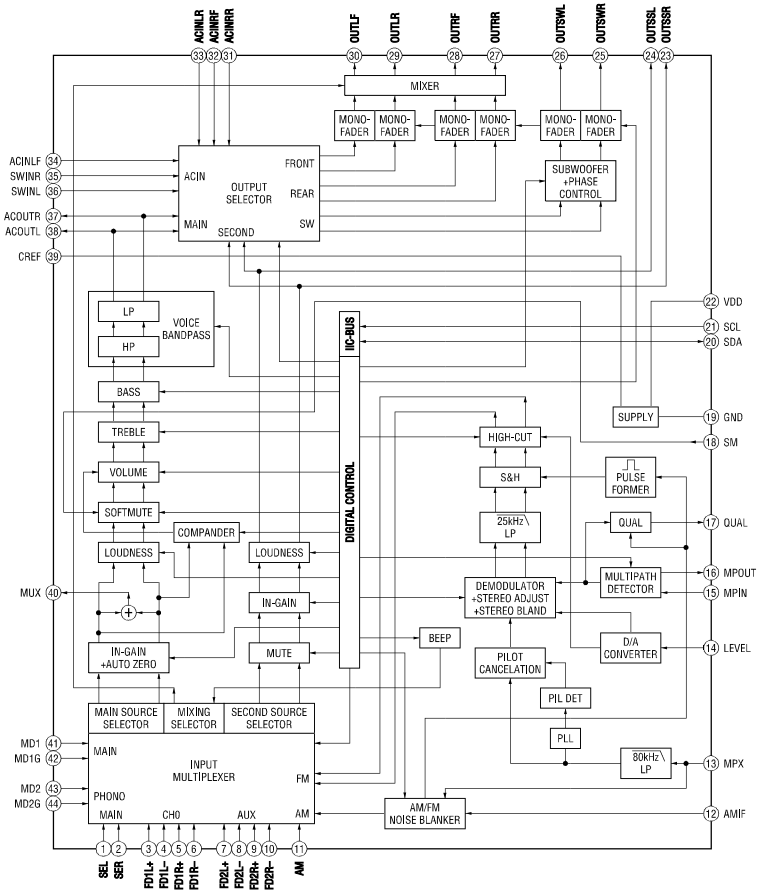
IC51 SAA6588T-118



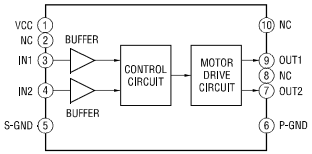
IC301 CXA2509AQ-T4



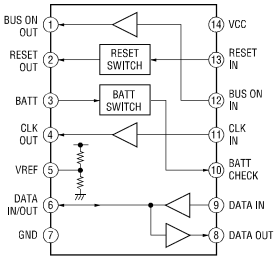
IC331 TDA7402TR



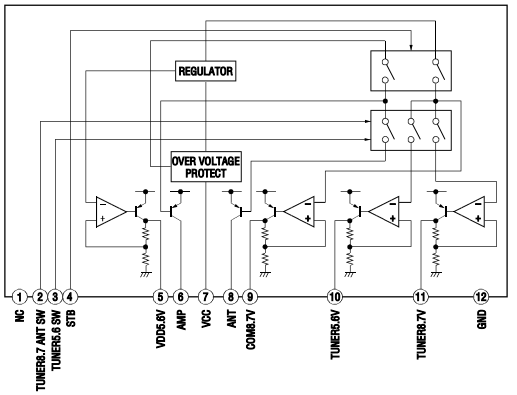
IC351 LB1930M-TLM



IC581 MM1175XFF

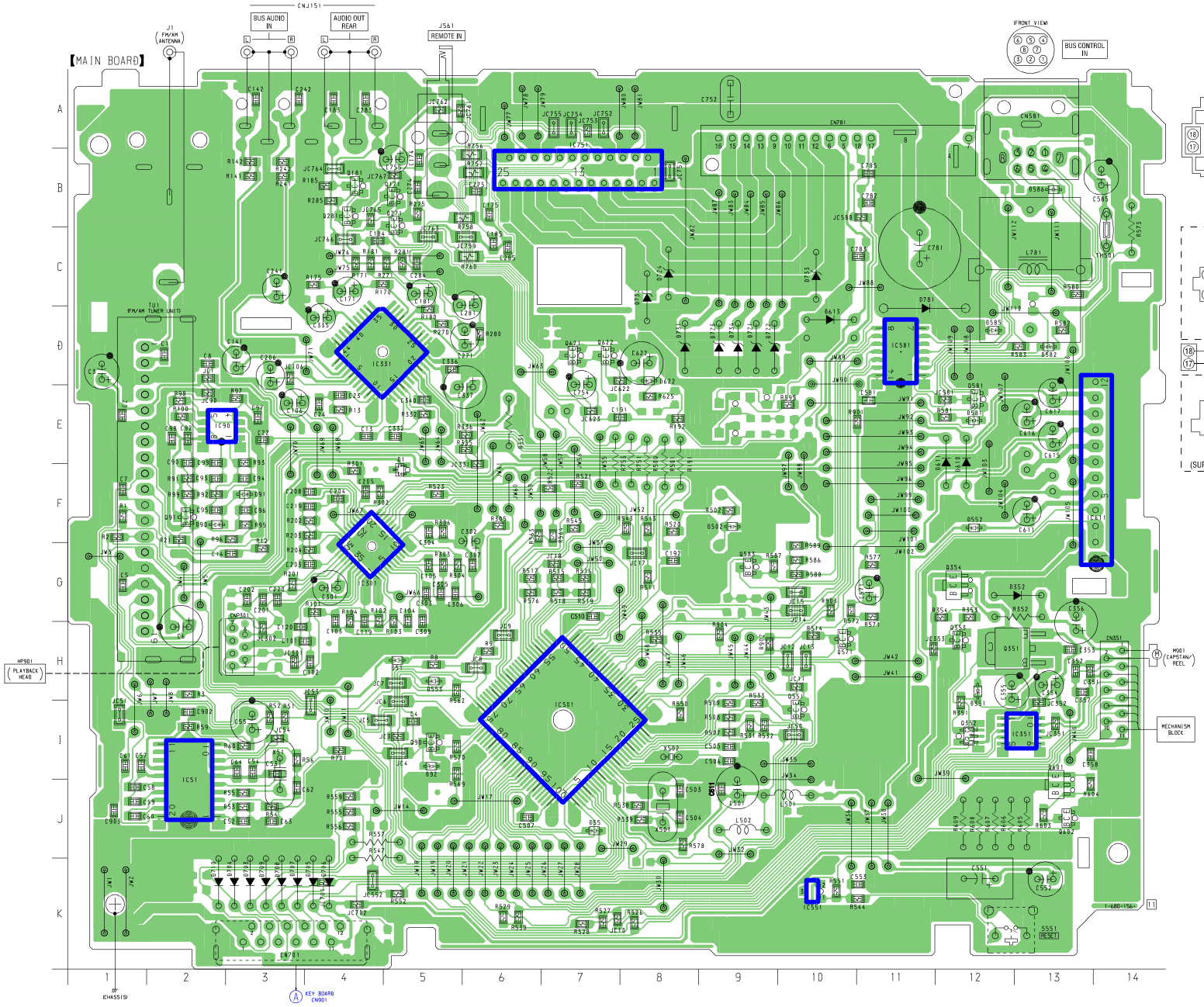


IC611 BA4908-V3



MC-Service

6-2. PRINTED WIRING BOARD – MAIN Board –

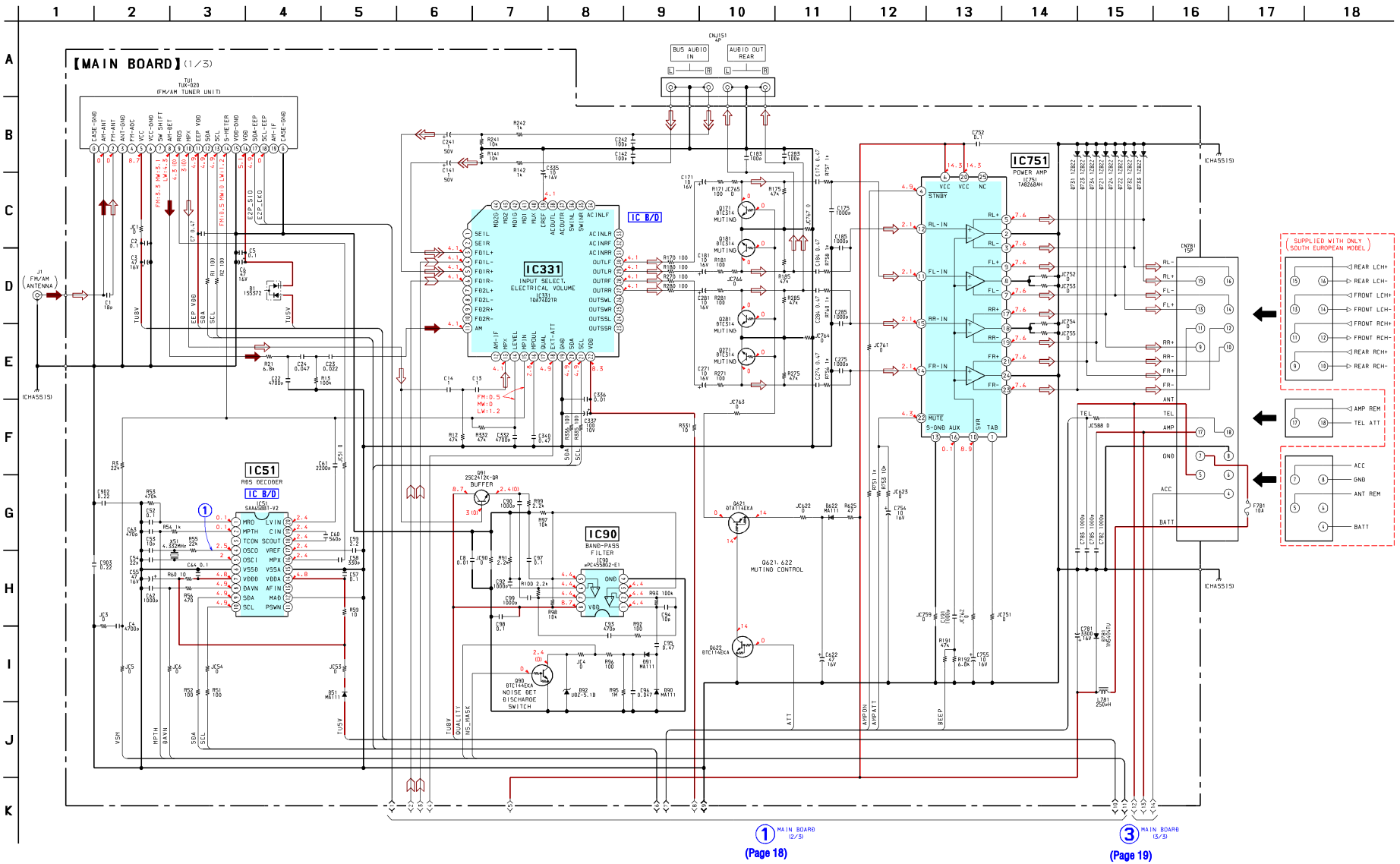


(Page 20)

- **Semiconductor Location**

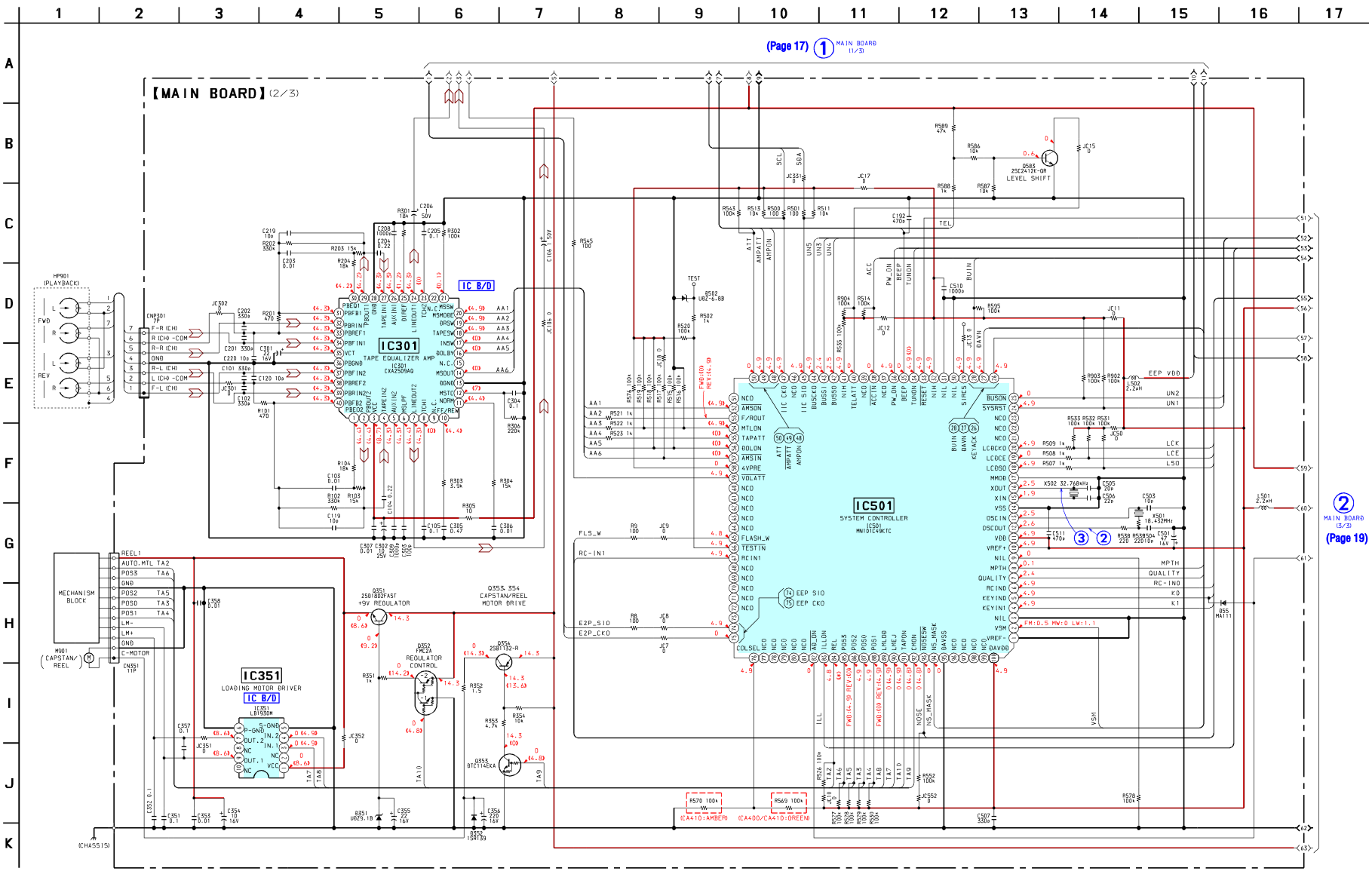
Ref. No.	Location	Ref. No.	Location
D1	F-5	D733	C-10
D51	H-5	D734	D-9
D55	J-7	D781	D-11
D90	F-2		
D91	F-3	IC51	J-2
D92	I-5	IC90	E-2
D351	H-12	IC301	G-4
D352	G-13	IC331	D-4
D502	F-9	IC351	I-13
D552	F-12	IC501	I-7
D553	H-5	IC551	K-10
D581	E-12	IC581	D-11
D582	D-13	IC611	F-14
D585	D-12	IC751	A-7
D586	B-13		
D610	E-12	Q90	I-5
D611	E-12	Q91	F-2
D613	D-10	Q171	B-5
D622	D-8	Q181	B-4
D703	K-3	Q271	B-5
D704	K-3	Q281	B-4
D705	K-4	Q351	H-12
D706	K-4	Q352	I-12
D707	K-3	Q353	H-12
D708	K-3	Q354	G-12
D709	K-3	Q551	I-10
D710	K-2	Q571	H-10
D721	D-9	Q581	E-12
D722	D-9	Q583	G-9
D723	D-9	Q601	J-13
D724	C-8	Q602	J-13
D731	D-8	Q621	D-7
D732	C-8	Q622	D-7

6-3. SCHEMATIC DIAGRAM – MAIN Board (1/3) – • See page 13 for Waveform. • See page 14 for IC Block Diagrams.

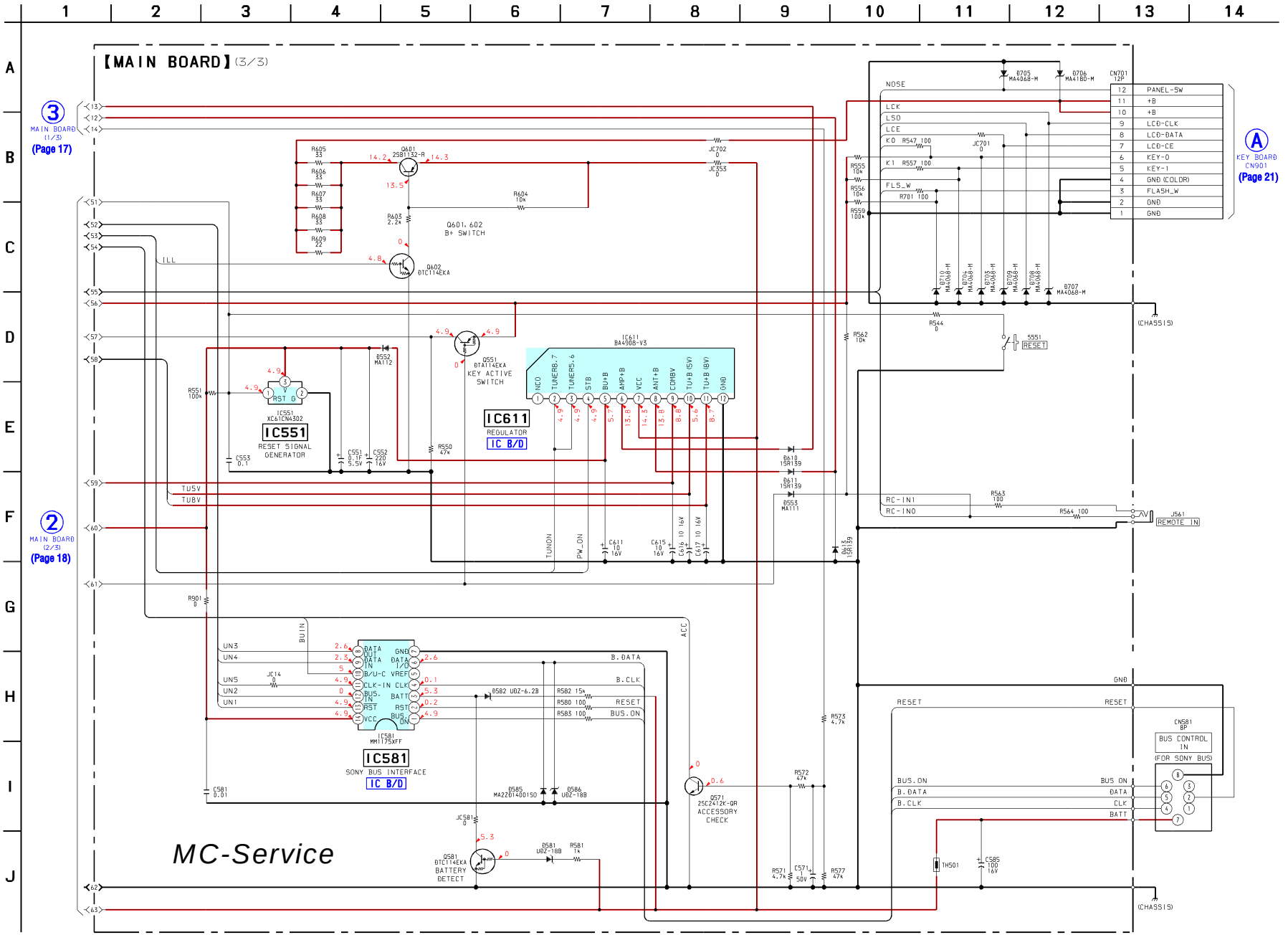


MC-Service

6-4. SCHEMATIC DIAGRAM – MAIN Board (2/3) – • See page 13 for Waveforms. • See page 14 for IC Block Diagrams.

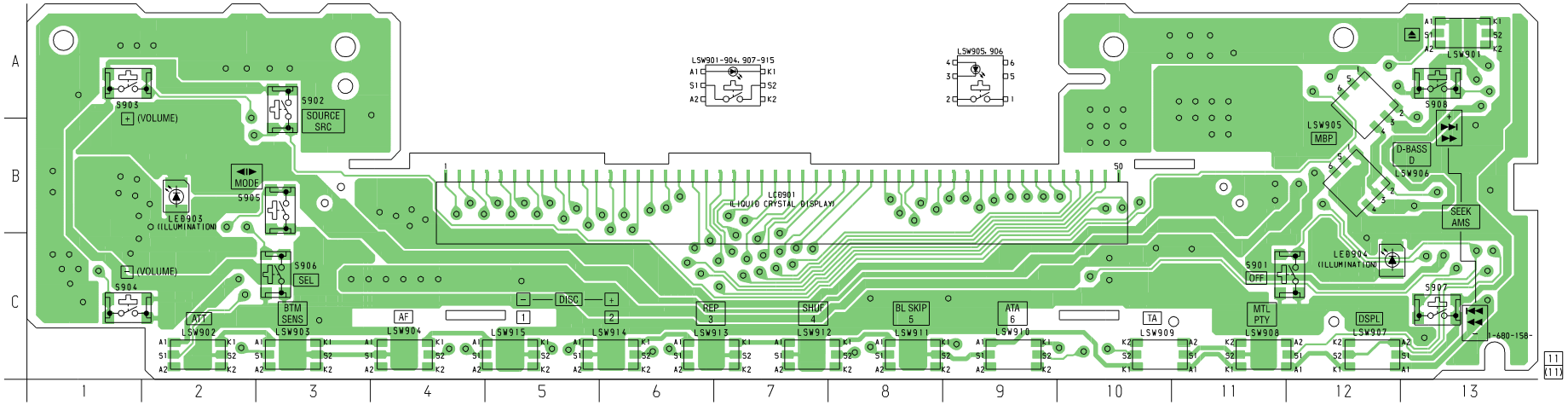


6-5. SCHEMATIC DIAGRAM – MAIN Board (3/3) – • See page 14 for IC Block Diagrams.



6-6. PRINTED WIRING BOARD – KEY Board –

【KEY BOARD】(COMPONENT SIDE)

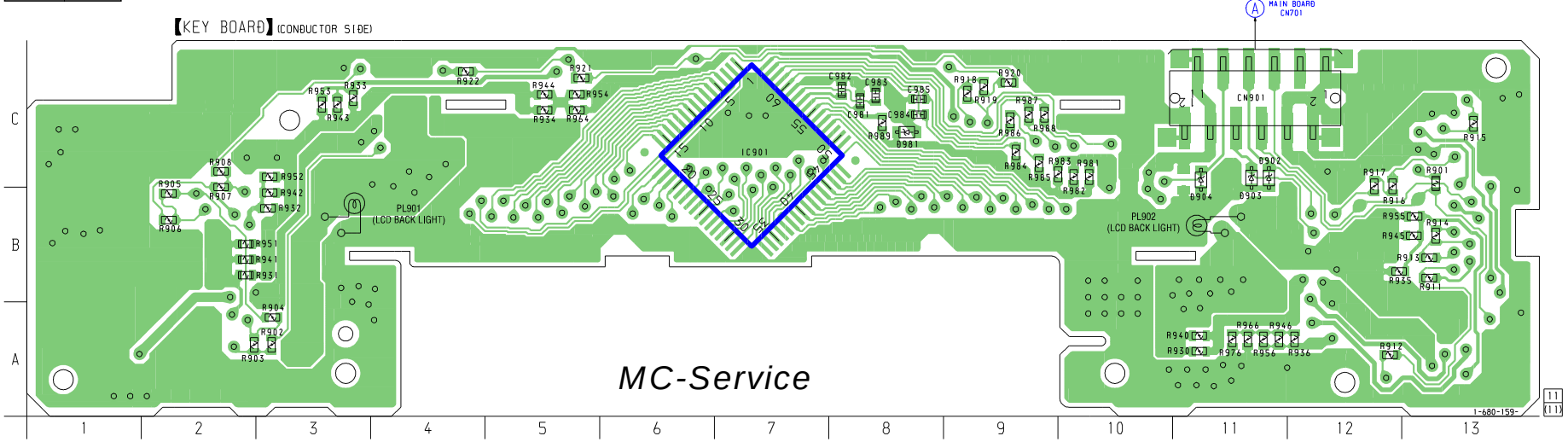


- **Semiconductor Location**

Ref. No.	Location
LED903	B-2
LED904	C-12

(Page 16)

【KEY BOARD】(CONDUCTOR SIDE)

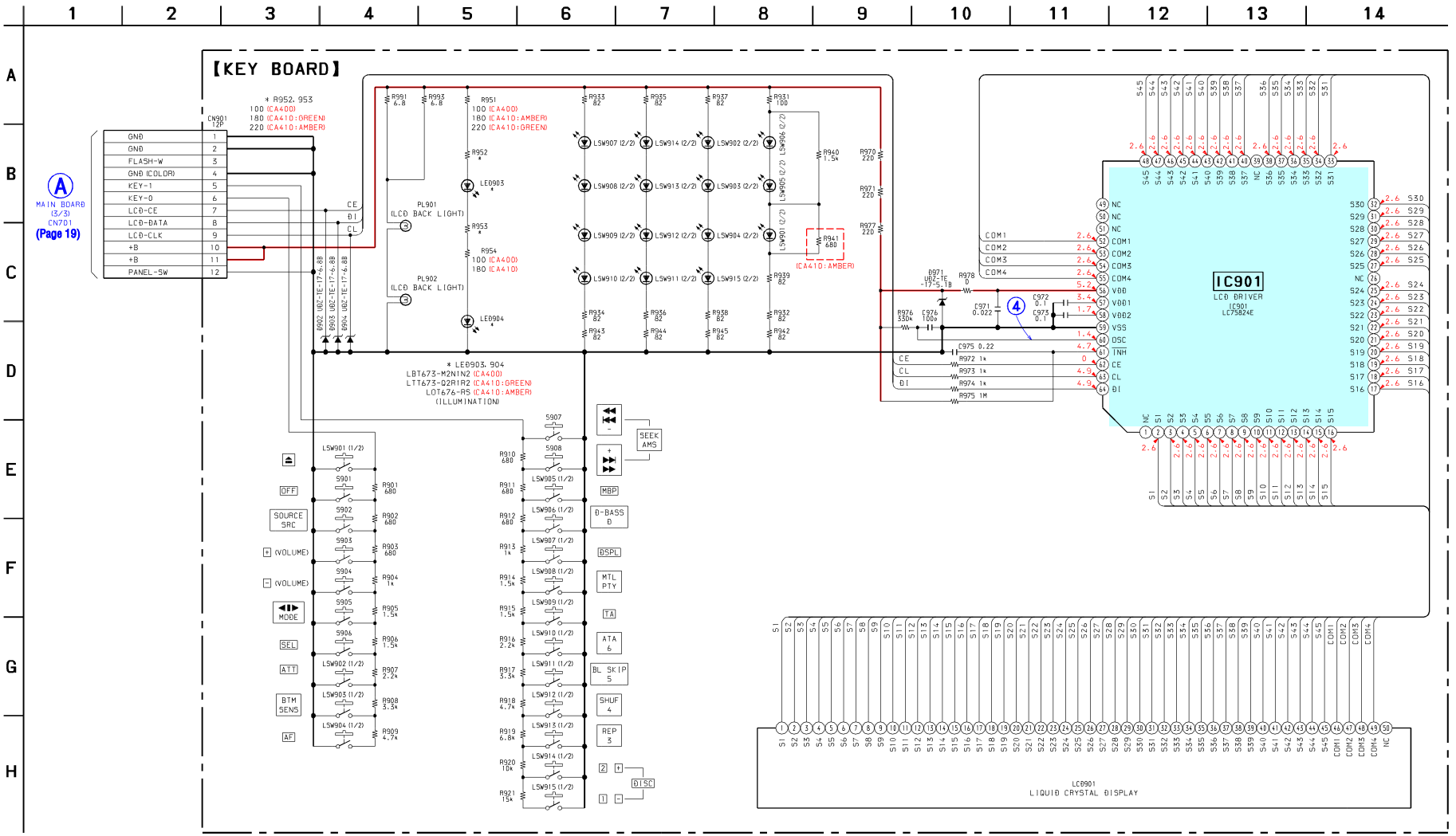


- **Semiconductor Location**

Ref. No.	Location
D902	C-11
D903	C-11
D904	B-11
D971	C-9
IC901	C-7

MC-Service

6-7. SCHEMATIC DIAGRAM – KEY Board – • See page 13 for Waveform.



6-8. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 MN101C49KTC (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VREF–	I	Reference voltage (0V) input terminal (for A/D converter)
2	VSM	I	FM and AM signal meter voltage detection signal input from the FM/AM tuner unit (TU1) (A/D input)
3	NIL	I	Not used (fixed at "L")
4	KEYIN1	I	Key input terminal (A/D input) S907, S908, LSW905 to LSW915 (SEEK/AMS – I◀◀ ◀◀, SEEK/AMS + ▶▶I ▶▶, MBP, D-BASS D, DSPL, MTL PTY, TA, ATA 6, BL SKIP 5, SHUF 4, REP 3, 2 DISC +, 1 DISC– keys input)
5	KEYIN0	I	Key input terminal (A/D input) S901 to S906, LSW901 to LSW904 (OFF, SRC SOURCE, + (VOLUME), – (VOLUME), MODE ◀II▶, SEL, ⏏, ATF, BTM SENS, AF keys input)
6	RCIN0	I	Rotary remote commander key input terminal (A/D input)
7	QUALITY	I	Noise level detection signal input at SEEK mode (A/D input)
8	MPTH	I	Multi-path detection signal input from the RDS decoder (IC51) (A/D input)
9	NIL	I	Not used (fixed at "L")
10	VREF+	I	Reference voltage (+5V) input terminal (for A/D converter)
11	VDD	—	Power supply terminal (+5V)
12	OSCOUT	O	Main system clock output terminal (18.432 MHz)
13	OSCIN	I	Main system clock input terminal (18.432 MHz)
14	VSS	—	Ground terminal
15	XI	I	Sub system clock input terminal (32.768 kHz)
16	XO	O	Sub system clock output terminal (32.768 kHz)
17	MMOD	I	Selection signal of memory mode input terminal "L":single chip mode (fixed at "L")
18	LCDSO	O	Serial data output to the liquid crystal display driver (IC901)
19	LCDCE	O	Chip enable signal output to the liquid crystal display driver (IC901) "H" active
20	LCDCKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC901)
21 to 23	NCO	O	Not used (open)
24	$\overline{\text{SYSRST}}$	O	Reset signal output to the SONY bus interface (IC581) "L": reset
25	$\overline{\text{BUSON}}$	O	Bus on/off control signal output to the SONY bus interface (IC581) "L": bus on
26	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
27	DAVN	I	Synchronized detection signal of RDS data block input from the RDS decoder (IC51) "H" active
28	BUIN	I	Battery detection signal input from the SONY bus interface (IC581) "L" is input at low voltage
29	SIRCS	I	SIRCS remote control signal input terminal Not used (open)
30, 31	NIL	I	Not used (fixed at "L")
32	NIH	I	Not used (fixed at "H")
33	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC551) and reset switch (S551) "L": reset "L" is input for several 100 msec after power on, then it changes to "H"
34	TUNON	O	Tuner system power supply on/off control signal output "H": tuner power on
35	BEEP	O	Beep sound drive signal output to the power amplifier (IC751)
36	PW_ON	O	Main system power supply on/off control signal output "H": power on
37	NCO	I	Not used (open)
38	$\overline{\text{ACCIN}}$	I	Accessory detection signal input "L": accessory on
39	NCO	O	Not used (open)
40	TELATT	I	Telephone attenuate signal input At input of "H", the signal is attenuated by –20 dB
41	NIH	I	Not used (fixed at "H")
42	BUSSO	O	Serial data output to the SONY bus interface (IC581)
43	BUSSI	I	Serial data input from the SONY bus interface (IC581)

Pin No.	Pin Name	I/O	Description
44	BUSCKO	O	Serial data transfer clock signal output to the SONY bus interface (IC581)
45	IIC SIO	I/O	Two-way data IIC bus with the FM/AM tuner unit (TU1), RDS decoder (IC51) and electrical volume (IC331)
46	NCO	O	Not used (open)
47	IIC CKO	O	IIC bus clock signal output to the FM/AM tuner unit (TU1), RDS decoder (IC51) and electrical volume (IC331)
48	AMPON	O	Standby on/off control signal output to the power amplifier (IC751) "L": standby mode, "H": amplifier on
49	$\overline{\text{AMPATT}}$	O	Muting on/off control signal output to the power amplifier (IC751) "L": muting on
50	ATT	O	Audio line muting on/off control signal output "H": muting on
51	NCO	O	Not used (open)
52	$\overline{\text{AMSON}}$	O	Tape auto music sensor control signal output to the CXA2509AQ (IC301) "L": auto music sensor on
53	F/ROUT	O	Forward/reverse control signal output to the CXA2509AQ (IC301) "L": reverse direction, "H": forward direction
54	MTLON	O	METAL on/off control signal output to the CXA2509AQ (IC301) "H": METAL on
55	TAPATT	O	Tape muting on/off control signal output to the CXA2509AQ (IC301) "H": muting on Active at ATA, FF/REW mode
56	NCO	O	Not used (open)
57	AMSIN	I	Whether a music is present or not from CXA2509AQ (IC301) is detected at auto music sensor "L": music is present, "H": music is not present
58	NCO	O	Not used (open)
59	$\overline{\text{VOLATT}}$	O	Pre amplifier muting on/off control signal output to the electrical volume (IC331) "L": muting on
60 to 64	NCO	O	Not used (open)
65	FLASH_W	I	Internal flash memory data write mode detection signal input terminal "L": data write mode Not used (open)
66	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode "L": test mode, normally fixed at "H"
67	RCIN1	I	Rotary remote commander shift key input terminal "L": shift key on
68 to 73	NCO	O	Not used (open)
74	EEP SIO	I/O	Two-way data bus for tuner EEPROM with the FM/AM tuner unit (TU1)
75	EEP CKO	I/O	Two-way bus clock signal for tuner EEPROM with the FM/AM tuner unit (TU1)
76	COLSEL	I	Setting terminal for the illumination color "L": amber (XR-CA410: AMBER), "H": green (XR-CA400/CA410: GREEN)
77 to 81	NCO	O	Not used (open)
82	$\overline{\text{AD ON}}$	O	A/D converter power control signal output terminal When the KEYACK (pin ㉖) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input
83	ILLON	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC901) "H": power on
84	REL	I	Rotation detection signal input from supply reel sensor and take-up reel sensor on the mechanism deck
85	POS3	I	Tape position (EJECT/FF/REW/REV/FWD mode) detect input from the tape operation switch on the deck mechanism. POS3: "L": REV and EJECT mode, "H": others mode. POS2: "L": REW mode, "H": others mode. POS0: "L": EJECT mode, "H": others mode. POS1: "L": FF and FWD mode, "H": others mode
86	POS2	I	
87	POS0	I	
88	POS1	I	
89	LMLOD	O	Motor drive signal output to the loading motor drive (IC351) "H" active (For the loading direction and forward side operation) *1
90	LMEJ	O	Motor drive signal output to the loading motor drive (IC351) "H" active (For the eject direction and reverse side operation) *1

Pin No.	Pin Name	I/O	Description
91	TAPEON	O	Power on/off control signal output of the loading motor drive (IC351) and capstan/reel motor (M901) "H": motor on
92	CMON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
93	$\overline{\text{NOSESW}}$	I	Front panel block remove/attach detection signal input "L": front panel is attached, "H": front panel is removed
94	NS_MASK	O	Discharge control signal output for the noise detection circuit "H": discharge
95	DAVSS	—	Ground terminal (for D/A converter)
96 to 99	NCO	O	Not used (open)
100	DAVCC	—	Power supply terminal (+5V) (for D/A converter)

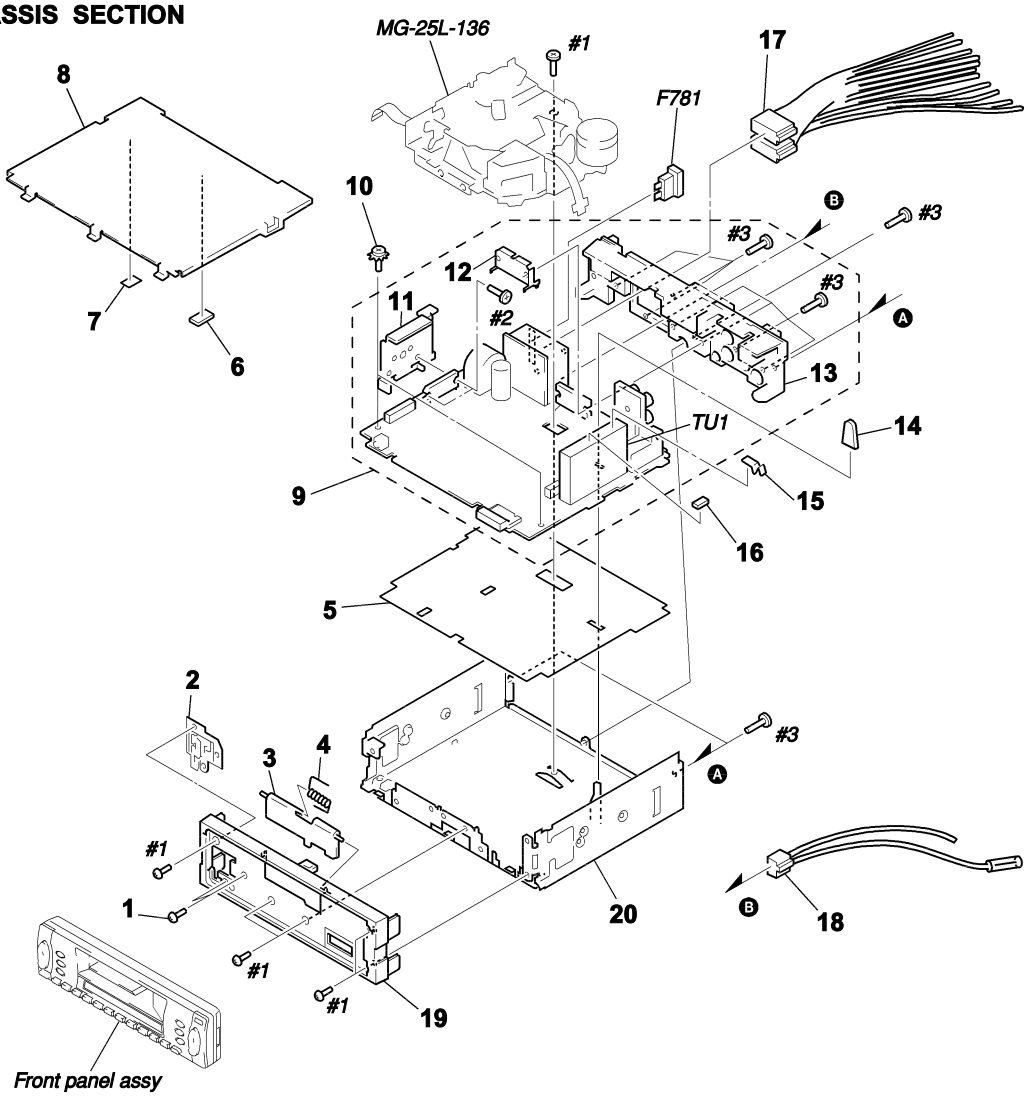
*1 Loading motor control

Mode / Terminal	STOP	LOADING/ FORWARD	EJECT/ REVERSE	BRAKE
LMLOD (pin ⑧⑨)	"L"	"H"	"L"	"H"
LMEJ (pin ⑨⓪)	"L"	"L"	"H"	"H"

SECTION 7
EXPLODED VIEWS

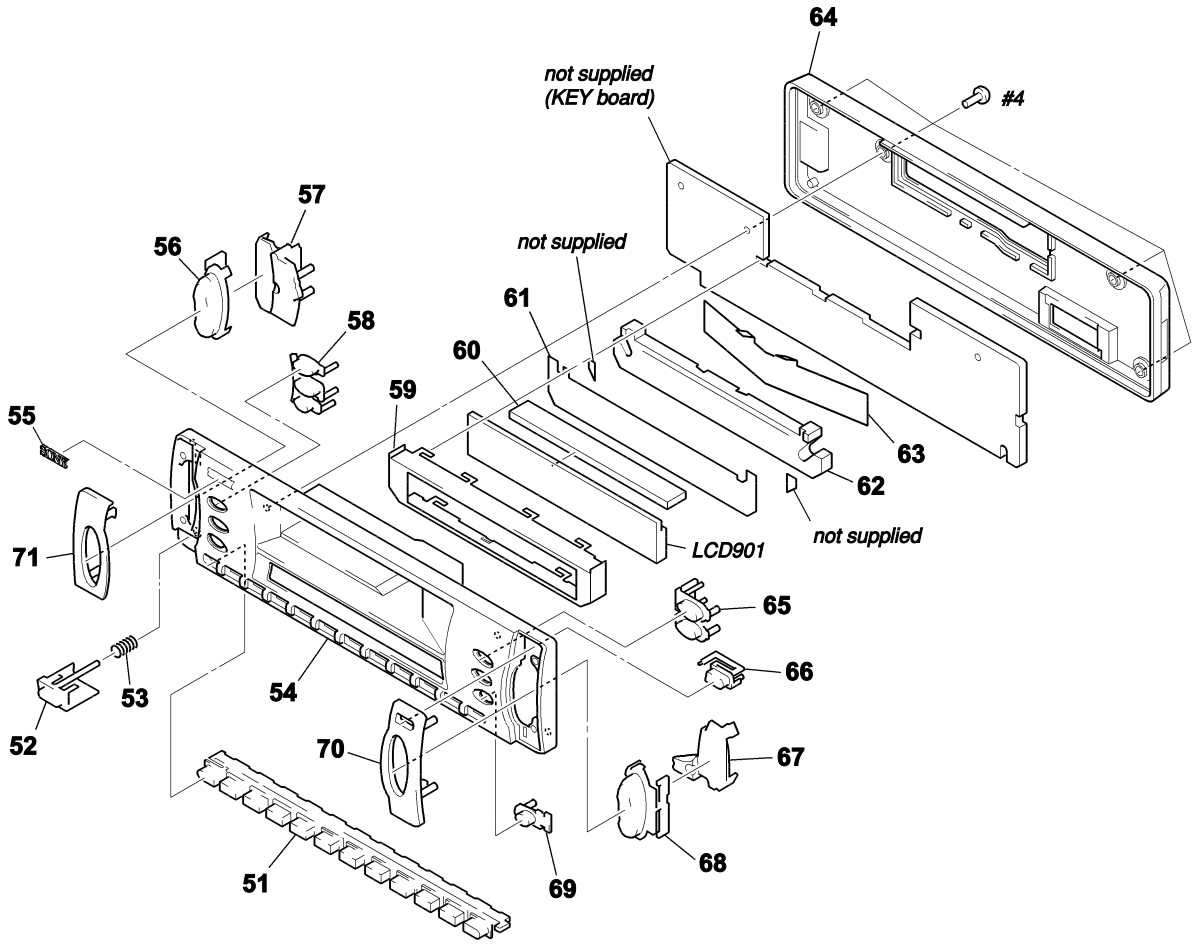
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	3-042-244-11	SCREW (T)	
2	X-3370-437-1	LOCK ASSY	
3	3-027-437-51	DOOR, CASSETTE	
4	3-935-003-01	SPRING, TORSION	
* 5	3-033-846-01	INSULATED PLATE	
* 6	3-046-991-01	SPACER (COVER R)	
* 7	3-046-990-01	SPACER (COVER L)	
* 8	3-040-995-11	COVER	
* 9	A-3326-771-A	MAIN BOARD, COMPLETE (CA410: AMBER)	
* 9	A-3326-772-A	MAIN BOARD, COMPLETE (CA400/CA410: GREEN)	
10	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
* 11	3-224-902-01	HEAT SINK (REG)	
* 12	3-040-998-01	BRACKET (IC)	
* 13	3-224-899-01	HEAT SINK (ISO)	
14	3-012-859-01	CAP (25), RUBBER	
* 15	3-045-878-01	PLATE (TU), GROUND	
* 16	3-045-877-01	CUSHION (TU)	
17	1-782-381-11	CORD (WITH CONNECTOR) (ISO P&S) (POWER) (South European)	
18	1-777-989-41	CORD (WITH CONNECTOR) (AMP REM/ATT)	
19	3-224-862-01	PANEL, SUB	
20	3-009-813-52	CHASSIS	
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
TU1	A-3220-812-A	FM/AM TUNER UNIT (TUX-020)	

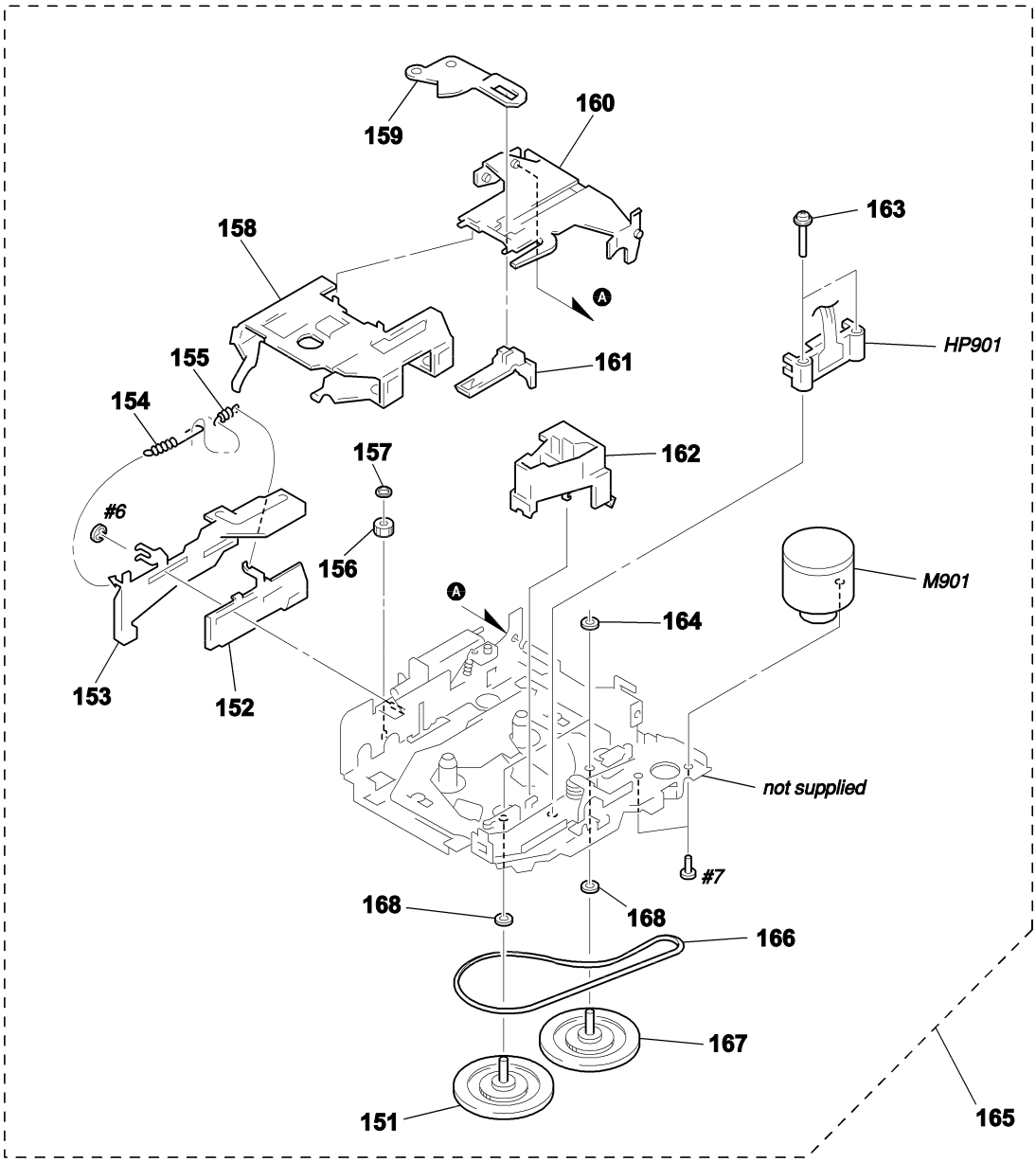
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-225-123-01	BUTTON (PRESET/CE) (ATT. SENS. AF. 1. 2. 3. 4. 5. 6. TA. PTY. DSPL)	
52	3-225-125-01	BUTTON (RELEASE/CE) (RELEASE)	
53	3-224-900-01	SPRING (RELEASE)	
54	3-224-898-01	PANEL, FRONT (CA400)	
54	3-224-898-11	PANEL, FRONT (CA410)	
55	3-042-504-01	EMBLEM (NO.2.5), SONY	
56	3-225-118-01	BUTTON (+/-) (CA400)	
56	3-225-118-11	BUTTON (+/-) (CA410)	
* 57	3-225-127-01	PLATE (L), LIGHT GUIDE	
58	3-225-120-01	BUTTON (L/CE) (SRC. MODE. SEL)	
* 59	3-224-896-01	PLATE (LCD), GROUND	
60	1-694-781-11	CONDUCTIVE BOARD, CONNECTION	
* 61	3-224-871-01	ILLUMINATOR (LCD) (CA400)	

Ref. No.	Part No.	Description	Remark
* 61	3-224-871-11	ILLUMINATOR (LCD) (CA410)	
* 62	3-224-870-01	PLATE (LCD), LIGHT GUIDE	
* 63	3-224-895-01	REFLECTOR (LCD)	
64	3-224-861-01	PANEL, FRONT BACK	
65	3-225-121-01	BUTTON (R/CE) (MBP. D)	
66	3-225-124-01	BUTTON (EJECT/CE) (⏏)	
* 67	3-225-128-01	PLATE (R), LIGHT GUIDE	
68	3-225-119-01	BUTTON (S/A) (+ ▶▶I ▶▶. SEEK AMS. ◀◀ I◀◀ -) (CA400)	
68	3-225-119-11	BUTTON (S/A) (+ ▶▶I ▶▶. SEEK AMS. ◀◀ I◀◀ -) (CA410)	
69	3-225-122-01	BUTTON (OFF)	
70	3-225-117-01	ESCUTCHEON (R)	
71	3-225-116-01	ESCUTCHEON (L)	
LCD901	1-804-298-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION (MG-25L-136)



Ref. No.	Part No.	Description	Remark
151	A-3291-667-A	CLUTCH (FR) ASSY	
* 152	3-019-130-01	LEVER (LDG-A)	
* 153	3-019-131-01	LEVER (LDG-B)	
154	3-020-539-01	SPRING (LD-1), TENSION	
155	3-020-540-01	SPRING (LD-2), TENSION	
156	3-020-542-01	GEAR (LOADING FT)	
157	3-341-753-11	WASHER, POLYETHYLENE	
158	3-020-533-01	HOUSING	
* 159	3-020-532-01	ARM (SUCTION)	
160	3-020-534-01	HANGER	
161	3-933-346-01	CATCHER	
162	3-933-344-01	GUIDE (C)	
163	3-014-798-01	SCREW (HEAD), SPECIAL	
164	3-364-151-01	WASHER	
165	A-3220-811-A	MECHANISM DECK ASSY	
166	3-017-302-01	BELT (25)	
167	3-026-636-01	FLYWHEEL (F)	
168	3-701-437-21	WASHER	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

SECTION 8
ELECTRICAL PARTS LIST

KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
		KEY BOARD	
		**********	
	1-694-781-11	CONDUCTIVE BOARD, CONNECTION	
*	3-224-870-01	PLATE (LCD), LIGHT GUIDE	
*	3-224-871-01	ILLUMINATOR (LCD) (CA400)	
*	3-224-871-11	ILLUMINATOR (LCD) (CA410)	
*	3-224-895-01	REFLECTOR (LCD)	
*	3-224-896-01	PLATE (LCD), GROUND	
		< CAPACITOR >	
C971	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C972	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C973	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C975	1-127-715-11	CERAMIC CHIP 0.22uF 10% 16V	
C976	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
		< CONNECTOR >	
CN901	1-794-312-11	PIN, CONNECTOR 12P	
		< DIODE >	
D902	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D903	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D904	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D971	8-719-976-99	DIODE DTZ5.1B	
		< IC >	
IC901	8-759-366-34	IC LC75824E	
		< LIQUID CRYSTAL DISPLAY >	
LCD901	1-804-298-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< LED >	
LED903	8-719-082-69	LED LBT673-M2N1N2 (ILLUMINATION)	(CA400)
LED903	8-719-082-71	LED LOT676-RS (ILLUMINATION)	(CA410: AMBER)
LED903	8-719-084-33	LED LTT673-Q2R1R2 (ILLUMINATION)	(CA410: GREEN)
LED904	8-719-082-69	LED LBT673-M2N1N2 (ILLUMINATION)	(CA400)
LED904	8-719-082-71	LED LOT676-RS (ILLUMINATION)	(CA410: AMBER)
LED904	8-719-084-33	LED LTT673-Q2R1R2 (ILLUMINATION)	(CA410: GREEN)
		< SWITCH >	
LSW901	1-771-882-11	SWITCH, TACTILE (WITH LED) (⏏)	(CA410: AMBER)
LSW901	1-786-106-21	SWITCH, TACTILE (WITH LED) (⏏)	(CA400/CA410: GREEN)
LSW902	1-771-882-11	SWITCH, TACTILE (WITH LED) (ATF)	(CA410: AMBER)
LSW902	1-786-106-21	SWITCH, TACTILE (WITH LED) (ATF)	(CA400/CA410: GREEN)
LSW903	1-771-882-11	SWITCH, TACTILE (WITH LED) (BTM, SENS)	(CA410: AMBER)
LSW903	1-786-106-21	SWITCH, TACTILE (WITH LED) (BTM, SENS)	(CA400/CA410: GREEN)
LSW904	1-771-882-11	SWITCH, TACTILE (WITH LED) (AF)	(CA410: AMBER)
LSW904	1-786-106-21	SWITCH, TACTILE (WITH LED) (AF)	(CA400/CA410: GREEN)
LSW905	1-771-500-21	SWITCH, KEYBOARD (WITH LED) (MBP)	
LSW906	1-771-500-21	SWITCH, KEYBOARD (WITH LED) (D-BASS, D)	
LSW907	1-771-882-11	SWITCH, TACTILE (WITH LED) (DSPL)	(CA410: AMBER)
LSW907	1-786-106-21	SWITCH, TACTILE (WITH LED) (DSPL)	(CA400/CA410: GREEN)
LSW908	1-771-882-11	SWITCH, TACTILE (WITH LED) (MTL, PTY)	(CA410: AMBER)
LSW908	1-786-106-21	SWITCH, TACTILE (WITH LED) (MTL, PTY)	(CA400/CA410: GREEN)
LSW909	1-771-882-11	SWITCH, TACTILE (WITH LED) (TA)	(CA410: AMBER)
LSW909	1-786-106-21	SWITCH, TACTILE (WITH LED) (TA)	(CA400/CA410: GREEN)
LSW910	1-771-882-11	SWITCH, TACTILE (WITH LED) (ATA, 6)	(CA410: AMBER)
LSW910	1-786-106-21	SWITCH, TACTILE (WITH LED) (ATA, 6)	(CA400/CA410: GREEN)
LSW911	1-771-882-11	SWITCH, TACTILE (WITH LED) (BL SKIP, 5)	(CA410: AMBER)
LSW911	1-786-106-21	SWITCH, TACTILE (WITH LED) (BL SKIP, 5)	(CA400/CA410: GREEN)
LSW912	1-771-882-11	SWITCH, TACTILE (WITH LED) (SHUF, 4)	(CA410: AMBER)
LSW912	1-786-106-21	SWITCH, TACTILE (WITH LED) (SHUF, 4)	(CA400/CA410: GREEN)

KEY

Ref. No.	Part No.	Description			Remark
LSW913	1-771-882-11	SWITCH, TACTILE (WITH LED) (REP, 3)			(CA410: AMBER)
LSW913	1-786-106-21	SWITCH, TACTILE (WITH LED) (REP, 3)			(CA400/CA410: GREEN)
LSW914	1-771-882-11	SWITCH, TACTILE (WITH LED) (2, DISC +)			(CA410: AMBER)
LSW914	1-786-106-21	SWITCH, TACTILE (WITH LED) (2, DISC +)			(CA400/CA410: GREEN)
LSW915	1-771-882-11	SWITCH, TACTILE (WITH LED) (1, DISC –)			(CA410: AMBER)
LSW915	1-786-106-21	SWITCH, TACTILE (WITH LED) (1, DISC –)			(CA400/CA410: GREEN)
		< PILOT LAMP >			
PL901	1-518-743-21	LAMP, PILOT (LCD BACK LIGHT)			(CA410: AMBER)
PL901	1-518-743-31	LAMP, PILOT (LCD BACK LIGHT)			(CA410: GREEN)
PL901	1-518-743-41	LAMP, PILOT (LCD BACK LIGHT) (CA400)			
PL902	1-518-743-21	LAMP, PILOT (LCD BACK LIGHT)			(CA410: AMBER)
PL902	1-518-743-31	LAMP, PILOT (LCD BACK LIGHT)			(CA410: GREEN)
PL902	1-518-743-41	LAMP, PILOT (LCD BACK LIGHT) (CA400)			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/16W
R902	1-216-819-11	METAL CHIP	680	5%	1/16W
R903	1-216-819-11	METAL CHIP	680	5%	1/16W
R904	1-216-821-11	METAL CHIP	1K	5%	1/16W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R908	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R909	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R910	1-216-819-11	METAL CHIP	680	5%	1/16W
R911	1-216-819-11	METAL CHIP	680	5%	1/16W
R912	1-216-819-11	METAL CHIP	680	5%	1/16W
R913	1-216-821-11	METAL CHIP	1K	5%	1/16W
R914	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R915	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R916	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R917	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R918	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R919	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R920	1-216-833-11	METAL CHIP	10K	5%	1/16W
R921	1-216-835-11	METAL CHIP	15K	5%	1/16W
R931	1-216-809-11	METAL CHIP	100	5%	1/16W
R932	1-216-808-11	METAL CHIP	82	5%	1/16W
R933	1-216-808-11	METAL CHIP	82	5%	1/16W
R934	1-216-808-11	METAL CHIP	82	5%	1/16W
R935	1-216-808-11	METAL CHIP	82	5%	1/16W
R936	1-216-808-11	METAL CHIP	82	5%	1/16W
R937	1-216-808-11	METAL CHIP	82	5%	1/16W
R938	1-216-808-11	METAL CHIP	82	5%	1/16W
R939	1-216-808-11	METAL CHIP	82	5%	1/16W
R940	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R941	1-216-819-11	METAL CHIP	680	5%	1/16W (CA410: AMBER)

Ref. No.	Part No.	Description			Remark
R942	1-216-808-11	METAL CHIP	82	5%	1/16W
R943	1-216-808-11	METAL CHIP	82	5%	1/16W
R944	1-216-808-11	METAL CHIP	82	5%	1/16W
R945	1-216-808-11	METAL CHIP	82	5%	1/16W
R951	1-216-809-11	METAL CHIP	100	5%	1/16W (CA400)
R951	1-216-812-11	METAL CHIP	180	5%	1/16W (CA410: AMBER)
R951	1-216-813-11	METAL CHIP	220	5%	1/16W (CA410: GREEN)
R952	1-216-809-11	METAL CHIP	100	5%	1/16W (CA400)
R952	1-216-812-11	METAL CHIP	180	5%	1/16W (CA410: GREEN)
R952	1-216-813-11	METAL CHIP	220	5%	1/16W (CA410: AMBER)
R953	1-216-809-11	METAL CHIP	100	5%	1/16W (CA400)
R953	1-216-812-11	METAL CHIP	180	5%	1/16W (CA410: GREEN)
R953	1-216-813-11	METAL CHIP	220	5%	1/16W (CA410: AMBER)
R954	1-216-809-11	METAL CHIP	100	5%	1/16W (CA400)
R954	1-216-812-11	METAL CHIP	180	5%	1/16W (CA410)
R970	1-216-813-11	METAL CHIP	220	5%	1/16W
R971	1-216-813-11	METAL CHIP	220	5%	1/16W
R972	1-216-821-11	METAL CHIP	1K	5%	1/16W
R973	1-216-821-11	METAL CHIP	1K	5%	1/16W
R974	1-216-821-11	METAL CHIP	1K	5%	1/16W
R975	1-216-857-11	METAL CHIP	1M	5%	1/16W
R976	1-216-851-11	METAL CHIP	330K	5%	1/16W
R977	1-216-813-11	METAL CHIP	220	5%	1/16W
R978	1-216-864-11	SHORT	0		
R991	1-216-795-11	RES-CHIP	6.8	5%	1/16W
R993	1-216-795-11	RES-CHIP	6.8	5%	1/16W
		< SWITCH >			
S901	1-771-884-11	SWITCH, TACTILE (OFF)			
S902	1-771-884-11	SWITCH, TACTILE (SRC, SOURCE)			
S903	1-771-884-11	SWITCH, TACTILE (+ (VOLUME))			
S904	1-771-884-11	SWITCH, TACTILE (– (VOLUME))			
S905	1-771-884-11	SWITCH, TACTILE (MODE ◄I►)			
S906	1-771-884-11	SWITCH, TACTILE (SEL)			
S907	1-771-884-11	SWITCH, TACTILE (SEEK AMS ◄◄ I◄◄ –)			
S908	1-771-884-11	SWITCH, TACTILE (SEEK AMS + ►►I ►►)			

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MAIN

Ref. No.	Part No.	Description			Remark
*	A-3326-771-A	MAIN BOARD, COMPLETE (CA410: AMBER)			
*	A-3326-772-A	MAIN BOARD, COMPLETE (CA400/CA410: GREEN)			
		**********			
*	3-040-998-01	BRACKET (IC)			
*	3-224-899-01	HEAT SINK (ISO)			
*	3-224-902-01	HEAT SINK (REG)			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C1	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C2	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C3	1-104-664-11	ELECT	47uF	20%	16V
C4	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C5	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C6	1-124-589-11	ELECT	47uF	20%	16V
C7	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C8	1-163-021-11	CERAMIC CHIP	0.001uF	10%	50V
C13	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C14	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C22	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C23	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C24	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C52	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C53	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C54	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C55	1-124-589-11	ELECT	47uF	20%	16V
C57	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C58	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C59	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C60	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C61	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C62	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C63	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C64	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C90	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C92	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C93	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C94	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C95	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C96	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C97	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C98	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C99	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C101	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C102	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C103	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C104	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C105	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C106	1-126-160-11	ELECT	1uF	20%	50V
C119	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C120	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C141	1-126-160-11	ELECT	1uF	20%	50V
C142	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C171	1-124-233-11	ELECT	10uF	20%	16V
C174	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C175	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C181	1-124-233-11	ELECT	10uF	20%	16V
C183	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C184	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C185	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C191	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C192	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C201	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C202	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C203	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C204	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C205	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C206	1-126-160-11	ELECT	1uF	20%	50V
C208	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C219	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C220	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C241	1-126-160-11	ELECT	1uF	20%	50V
C242	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C271	1-124-233-11	ELECT	10uF	20%	16V
C274	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C275	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C281	1-124-233-11	ELECT	10uF	20%	16V
C283	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C284	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C285	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-124-234-00	ELECT	22uF	20%	16V
C302	1-131-353-00	TANTALUM	10uF	10%	35V
C303	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C304	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C305	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C306	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C307	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C309	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C332	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C335	1-124-233-11	ELECT	10uF	20%	16V
C336	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C337	1-124-584-00	ELECT	100uF	20%	10V
C340	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C351	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C352	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C353	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C354	1-124-233-11	ELECT	10uF	20%	16V
C355	1-124-234-00	ELECT	22uF	20%	16V
C356	1-126-934-11	ELECT	220uF	20%	16V
C357	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C358	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C501	1-124-589-11	ELECT	47uF	20%	16V
C503	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C504	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C505	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C506	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C507	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C510	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C511	1-163-133-11	CERAMIC CHIP	470PF	5%	50V
C551	1-125-710-11	DOUBLE LAYER	0.1F		5.5V
C552	1-126-934-11	ELECT	220uF	20%	16V
C553	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C571	1-126-160-11	ELECT	1uF	20%	50V
C581	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

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Ref. No.	Part No.	Description			Remark
C585	1-126-933-11	ELECT	100uF	20%	16V
C611	1-126-157-11	ELECT	10uF	20%	16V
C615	1-126-157-11	ELECT	10uF	20%	16V
C616	1-126-157-11	ELECT	10uF	20%	16V
C617	1-126-157-11	ELECT	10uF	20%	16V
C622	1-124-589-11	ELECT	47uF	20%	16V
C752	1-136-165-00	FILM	0.1uF	5%	50V
C754	1-124-233-11	ELECT	10uF	20%	16V
C755	1-126-157-11	ELECT	10uF	20%	16V
C781	1-107-885-31	ELECT	3300uF	20%	16V
C782	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C783	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C785	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C902	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C903	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
		< CONNECTOR >			
CN301	1-785-694-11	CONNECTOR, FFC/FPC 7P			
CN351	1-784-490-11	CONNECTOR, FFC/FPC 11P			
CN581	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CN701	1-794-311-21	PLUG, CONNECTOR 12P			
CN781	1-794-070-12	PIN, CONNECTOR (ISO)			
		< JACK >			
CNJ151	1-774-699-12	JACK, PIN 4P (BUS AUDIO IN, AUDIO OUT REAR)			
		< DIODE >			
D1	8-719-056-65	DIODE 1SS372-TE85L			
D51	8-719-073-01	DIODE MA111- (K8).S0			
D55	8-719-073-01	DIODE MA111- (K8).S0			
D90	8-719-073-01	DIODE MA111- (K8).S0			
D91	8-719-073-01	DIODE MA111- (K8).S0			
D92	8-719-976-99	DIODE DTZ5.1B			
D351	8-719-977-22	DIODE DTZ9.1			
D352	8-719-970-02	DIODE 1SR139-400			
D502	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D552	8-719-067-56	DIODE MA112-TX			
D553	8-719-073-01	DIODE MA111- (K8).S0			
D581	8-719-056-93	DIODE UDZ-TE-17-18B			
D582	8-719-056-82	DIODE UDZ-TE-17-6.2B			
D585	8-719-072-70	DIODE MA2ZD14001S0			
D586	8-719-056-93	DIODE UDZ-TE-17-18B			
D610	8-719-970-02	DIODE 1SR139-400			
D611	8-719-970-02	DIODE 1SR139-400			
D613	8-719-970-02	DIODE 1SR139-400			
D622	8-719-073-01	DIODE MA111- (K8).S0			
D703	8-719-109-97	DIODE RD6.8ESB2			
D704	8-719-109-97	DIODE RD6.8ESB2			
D705	8-719-109-97	DIODE RD6.8ESB2			
D706	8-719-034-94	DIODE MA4180-M (QZ)			
D707	8-719-109-97	DIODE RD6.8ESB2			
D708	8-719-109-97	DIODE RD6.8ESB2			
D709	8-719-109-97	DIODE RD6.8ESB2			
D710	8-719-109-97	DIODE RD6.8ESB2			
D721	8-719-079-42	DIODE 1ZB22 (TPA3)			
D722	8-719-079-42	DIODE 1ZB22 (TPA3)			
D723	8-719-079-42	DIODE 1ZB22 (TPA3)			

Ref. No.	Part No.	Description	Remark
D724	8-719-079-42	DIODE 1ZB22 (TPA3)	
D731	8-719-079-42	DIODE 1ZB22 (TPA3)	
D732	8-719-079-42	DIODE 1ZB22 (TPA3)	
D733	8-719-079-42	DIODE 1ZB22 (TPA3)	
D734	8-719-079-42	DIODE 1ZB22 (TPA3)	
D781	8-719-049-38	DIODE 1N5404TU	
		< IC >	
IC51	8-759-492-59	IC SAA6588T-118	
IC90	8-759-100-96	IC uPC4558G2-E1	
IC301	8-752-079-78	IC CXA2509AQ-T4	
IC331	8-759-653-27	IC TDA7402TR	
IC351	8-759-527-33	IC LB1930M-TLM	
IC501	8-759-828-82	IC MN101C49KTC	
IC551	8-759-682-69	IC XC61CN4302MR	
IC581	8-759-096-16	IC MM1175XFF	
IC611	8-759-661-47	IC BA4908-V3	
IC751	8-759-827-14	IC TA8268AH	
		< JACK >	
J1	1-815-185-11	JACK (ANT) (FM/AM ANTENNA IN)	
J561	1-566-822-41	JACK (REMOTE IN)	
		< SHORT >	
JC1	1-216-295-11	SHORT	0
JC3	1-216-295-11	SHORT	0
JC4	1-216-296-11	SHORT	0
JC5	1-216-296-11	SHORT	0
JC6	1-216-296-11	SHORT	0
JC7	1-216-296-11	SHORT	0
JC8	1-216-296-11	SHORT	0
JC9	1-216-296-11	SHORT	0
JC10	1-216-295-11	SHORT	0
JC11	1-216-295-11	SHORT	0
JC12	1-216-296-11	SHORT	0
JC13	1-216-296-11	SHORT	0
JC14	1-216-296-11	SHORT	0
JC15	1-216-296-11	SHORT	0
JC17	1-216-296-11	SHORT	0
JC18	1-216-295-11	SHORT	0
JC50	1-216-296-11	SHORT	0
JC51	1-216-296-11	SHORT	0
JC53	1-216-296-11	SHORT	0
JC54	1-216-295-11	SHORT	0
JC90	1-216-295-11	SHORT	0
JC106	1-216-295-11	SHORT	0
JC301	1-216-295-11	SHORT	0
JC302	1-216-295-11	SHORT	0
JC331	1-216-295-11	SHORT	0
JC351	1-216-295-11	SHORT	0
JC352	1-216-295-11	SHORT	0
JC353	1-216-295-11	SHORT	0
JC552	1-216-296-11	SHORT	0
JC581	1-216-295-11	SHORT	0
JC588	1-216-295-11	SHORT	0
JC622	1-216-295-11	SHORT	0
JC623	1-216-295-11	SHORT	0

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Ref. No.	Part No.	Description			Remark
JC701	1-216-295-11	SHORT	0		
JC702	1-216-295-11	SHORT	0		
JC751	1-216-296-11	SHORT	0		
JC752	1-216-296-11	SHORT	0		
JC753	1-216-295-11	SHORT	0		
JC754	1-216-296-11	SHORT	0		
JC755	1-216-296-11	SHORT	0		
JC759	1-216-296-11	SHORT	0		
JC761	1-216-295-11	SHORT	0		
JC762	1-216-295-11	SHORT	0		
JC763	1-216-296-11	SHORT	0		
JC764	1-216-296-11	SHORT	0		
JC765	1-216-295-11	SHORT	0		
JC766	1-216-296-11	SHORT	0		
JC767	1-216-295-11	SHORT	0		
		< COIL >			
L501	1-410-501-11	INDUCTOR	2.2uH		
L502	1-410-501-11	INDUCTOR	2.2uH		
L781	1-419-476-11	INDUCTOR	250uH		
		< TRANSISTOR >			
Q90	8-729-027-59	TRANSISTOR	DTC144EKA-T146		
Q91	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q171	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q181	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q271	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q281	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q351	8-729-015-11	TRANSISTOR	2SD1802FAST-TL		
Q352	8-729-047-76	TRANSISTOR	FMC2A-T148		
Q353	8-729-900-53	TRANSISTOR	DTC114EK		
Q354	8-729-106-60	TRANSISTOR	2SB1115A-YQ		
Q551	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q571	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q581	8-729-900-53	TRANSISTOR	DTC114EK		
Q583	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q601	8-729-106-60	TRANSISTOR	2SB1115A-YQ		
Q602	8-729-900-53	TRANSISTOR	DTC114EK		
Q621	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q622	8-729-900-53	TRANSISTOR	DTC114EK		
		< RESISTOR >			
R1	1-216-025-11	RES-CHIP	100	5%	1/10W
R2	1-216-025-11	RES-CHIP	100	5%	1/10W
R3	1-216-081-00	METAL CHIP	22K	5%	1/10W
R8	1-216-025-11	RES-CHIP	100	5%	1/10W
R9	1-216-025-11	RES-CHIP	100	5%	1/10W
R12	1-216-089-11	RES-CHIP	47K	5%	1/10W
R13	1-216-097-11	RES-CHIP	100K	5%	1/10W
R21	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R51	1-216-025-11	RES-CHIP	100	5%	1/10W
R52	1-216-025-11	RES-CHIP	100	5%	1/10W
R53	1-216-113-00	METAL CHIP	470K	5%	1/10W
R54	1-216-049-11	RES-CHIP	1K	5%	1/10W
R55	1-216-081-00	METAL CHIP	22K	5%	1/10W
R56	1-216-041-00	METAL CHIP	470	5%	1/10W
R59	1-216-001-00	METAL CHIP	10	5%	1/10W

Ref. No.	Part No.	Description			Remark
R60	1-216-001-00	METAL CHIP	10	5%	1/10W
R91	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R92	1-216-025-11	RES-CHIP	100	5%	1/10W
R93	1-216-097-11	RES-CHIP	100K	5%	1/10W
R95	1-216-121-11	RES-CHIP	1M	5%	1/10W
R96	1-216-025-11	RES-CHIP	100	5%	1/10W
R97	1-216-073-00	METAL CHIP	10K	5%	1/10W
R98	1-216-073-00	METAL CHIP	10K	5%	1/10W
R99	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R100	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R101	1-216-041-00	METAL CHIP	470	5%	1/10W
R102	1-216-109-00	METAL CHIP	330K	5%	1/10W
R103	1-216-077-00	RES-CHIP	15K	5%	1/10W
R104	1-216-079-00	METAL CHIP	18K	5%	1/10W
R141	1-216-073-00	METAL CHIP	10K	5%	1/10W
R142	1-216-049-11	RES-CHIP	1K	5%	1/10W
R170	1-216-025-11	RES-CHIP	100	5%	1/10W
R171	1-216-025-11	RES-CHIP	100	5%	1/10W
R175	1-216-089-11	RES-CHIP	47K	5%	1/10W
R180	1-216-025-11	RES-CHIP	100	5%	1/10W
R181	1-216-025-11	RES-CHIP	100	5%	1/10W
R185	1-216-089-11	RES-CHIP	47K	5%	1/10W
R191	1-249-437-11	CARBON	47K	5%	1/4W
R192	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R201	1-216-041-00	METAL CHIP	470	5%	1/10W
R202	1-216-109-00	METAL CHIP	330K	5%	1/10W
R203	1-216-077-00	RES-CHIP	15K	5%	1/10W
R204	1-216-079-00	METAL CHIP	18K	5%	1/10W
R241	1-216-073-00	METAL CHIP	10K	5%	1/10W
R242	1-216-049-11	RES-CHIP	1K	5%	1/10W
R270	1-216-025-11	RES-CHIP	100	5%	1/10W
R271	1-216-025-11	RES-CHIP	100	5%	1/10W
R275	1-216-089-11	RES-CHIP	47K	5%	1/10W
R280	1-216-025-11	RES-CHIP	100	5%	1/10W
R281	1-216-025-11	RES-CHIP	100	5%	1/10W
R285	1-216-089-11	RES-CHIP	47K	5%	1/10W
R301	1-216-079-00	METAL CHIP	18K	5%	1/10W
R302	1-216-097-11	RES-CHIP	100K	5%	1/10W
R303	1-216-063-00	RES-CHIP	3.9K	5%	1/10W
R304	1-216-077-00	RES-CHIP	15K	5%	1/10W
R305	1-216-001-00	METAL CHIP	10	5%	1/10W
R306	1-216-105-00	RES-CHIP	220K	5%	1/10W
R331	1-249-393-11	CARBON	10	5%	1/4W
R332	1-216-089-11	RES-CHIP	47K	5%	1/10W
R335	1-216-025-11	RES-CHIP	100	5%	1/10W
R336	1-216-025-11	RES-CHIP	100	5%	1/10W
R351	1-216-049-11	RES-CHIP	1K	5%	1/10W
R352	1-249-383-11	CARBON	1.5	5%	1/6W
R353	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R354	1-216-073-00	METAL CHIP	10K	5%	1/10W
R500	1-247-807-31	CARBON	100	5%	1/4W
R501	1-247-807-31	CARBON	100	5%	1/4W
R502	1-216-049-11	RES-CHIP	1K	5%	1/10W
R507	1-216-049-11	RES-CHIP	1K	5%	1/10W
R508	1-216-049-11	RES-CHIP	1K	5%	1/10W
R509	1-216-049-11	RES-CHIP	1K	5%	1/10W
R511	1-216-073-00	METAL CHIP	10K	5%	1/10W
R513	1-216-073-00	METAL CHIP	10K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R514	1-216-097-11	RES-CHIP	100K	5%	1/10W
R515	1-216-097-11	RES-CHIP	100K	5%	1/10W
R516	1-216-097-11	RES-CHIP	100K	5%	1/10W
R517	1-216-097-11	RES-CHIP	100K	5%	1/10W
R518	1-216-097-11	RES-CHIP	100K	5%	1/10W
R519	1-216-097-11	RES-CHIP	100K	5%	1/10W
R520	1-216-097-11	RES-CHIP	100K	5%	1/10W
R521	1-216-049-11	RES-CHIP	1K	5%	1/10W
R522	1-216-049-11	RES-CHIP	1K	5%	1/10W
R523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R526	1-216-097-11	RES-CHIP	100K	5%	1/10W
R527	1-216-097-11	RES-CHIP	100K	5%	1/10W
R528	1-216-097-11	RES-CHIP	100K	5%	1/10W
R529	1-216-097-11	RES-CHIP	100K	5%	1/10W
R530	1-216-097-11	RES-CHIP	100K	5%	1/10W
R531	1-216-097-11	RES-CHIP	100K	5%	1/10W
R532	1-216-097-11	RES-CHIP	100K	5%	1/10W
R533	1-216-097-11	RES-CHIP	100K	5%	1/10W
R535	1-216-097-11	RES-CHIP	100K	5%	1/10W
R538	1-216-033-00	METAL CHIP	220	5%	1/10W
R539	1-216-033-00	METAL CHIP	220	5%	1/10W
R543	1-216-097-11	RES-CHIP	100K	5%	1/10W
R544	1-216-295-11	SHORT	0		
R545	1-216-025-11	RES-CHIP	100	5%	1/10W
R547	1-247-807-31	CARBON	100	5%	1/4W
R550	1-216-089-11	RES-CHIP	47K	5%	1/10W
R551	1-216-097-11	RES-CHIP	100K	5%	1/10W
R552	1-216-097-11	RES-CHIP	100K	5%	1/10W
R555	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R556	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R557	1-247-807-31	CARBON	100	5%	1/4W
R559	1-216-097-11	RES-CHIP	100K	5%	1/10W
R562	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R563	1-216-025-11	RES-CHIP	100	5%	1/10W
R564	1-216-025-11	RES-CHIP	100	5%	1/10W
R569	1-216-097-11	RES-CHIP	100K	5%	1/10W (CA400/CA410: GREEN)
R570	1-216-097-11	RES-CHIP	100K	5%	1/10W (CA410: AMBER)
R571	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R572	1-216-089-11	RES-CHIP	47K	5%	1/10W
R573	1-249-425-11	CARBON	4.7K	5%	1/4W
R576	1-216-097-11	RES-CHIP	100K	5%	1/10W
R577	1-216-089-11	RES-CHIP	47K	5%	1/10W
R578	1-216-097-11	RES-CHIP	100K	5%	1/10W
R580	1-216-025-11	RES-CHIP	100	5%	1/10W
R581	1-216-049-11	RES-CHIP	1K	5%	1/10W
R582	1-216-077-00	RES-CHIP	15K	5%	1/10W
R583	1-216-025-11	RES-CHIP	100	5%	1/10W
R586	1-216-073-00	METAL CHIP	10K	5%	1/10W
R587	1-216-073-00	METAL CHIP	10K	5%	1/10W
R588	1-216-049-11	RES-CHIP	1K	5%	1/10W
R589	1-216-089-11	RES-CHIP	47K	5%	1/10W
R595	1-216-097-11	RES-CHIP	100K	5%	1/10W
R603	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R604	1-216-073-00	METAL CHIP	10K	5%	1/10W
R605	1-249-399-11	CARBON	33	5%	1/4W
R606	1-249-399-11	CARBON	33	5%	1/4W
R607	1-249-399-11	CARBON	33	5%	1/4W
R608	1-249-399-11	CARBON	33	5%	1/4W
R609	1-249-397-11	CARBON	22	5%	1/4W
R625	1-216-017-00	RES-CHIP	47	5%	1/10W
R701	1-216-025-11	RES-CHIP	100	5%	1/10W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R753	1-249-429-11	CARBON	10K	5%	1/4W
R756	1-216-198-00	RES-CHIP	1K	5%	1/10W
R757	1-216-198-00	RES-CHIP	1K	5%	1/10W
R758	1-216-198-00	RES-CHIP	1K	5%	1/10W
R760	1-216-198-00	RES-CHIP	1K	5%	1/10W
R901	1-216-295-11	SHORT	0		
R902	1-216-097-11	RES-CHIP	100K	5%	1/10W
R903	1-216-097-11	RES-CHIP	100K	5%	1/10W
R904	1-216-097-11	RES-CHIP	100K	5%	1/10W
		< SWITCH >			
S551	1-692-431-21	SWITCH, TACTILE (RESET)			
		< THERMISTOR >			
TH501	1-803-350-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TU1	A-3220-812-A	FM/AM TUNER UNIT (TUX-020)			
		< VIBRATOR >			
X51	1-579-242-41	VIBRATOR, CRYSTAL (4.332MHz)			
X501	1-781-294-21	VIBRATOR, CRYSTAL (18.432MHz)			
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			

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MISCELLANEOUS
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17	1-782-381-11	CORD (WITH CONNECTOR) (ISO P&S) (POWER) (South European)			
18	1-777-989-41	CORD (WITH CONNECTOR) (AMP REM/ATT)			
60	1-694-781-11	CONDUCTIVE BOARD, CONNECTION			
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)			
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)			
LCD901	1-804-298-11	DISPLAY PANEL, LIQUID CRYSTAL			
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)			
TU1	A-3220-812-A	FM/AM TUNER UNIT (TUX-020)			

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Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#4	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
#6	7-624-104-04	STOP RING 2.0, TYPE -E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	3-226-701-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH, ITALIAN)	
	3-226-701-21	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE, GREEK)	
	3-226-701-31	MANUAL, INSTRUCTION (ENGLISH, POLISH, CZECH, RUSSIAN, TURKISH)	
	3-226-702-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH, GERMAN, DUTCH, ITALIAN)	
	3-226-702-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, SWEDISH, PORTUGUESE, GREEK)	
	3-226-702-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, POLISH, CZECH, RUSSIAN, TURKISH)	
	X-3378-490-1	CASE (PANEL) ASSY (for FRONT PANEL)	
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Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	X-3373-602-1	FRAME ASSY	
502	X-3366-405-1	SCREW ASSY (EXP), FITTING	
503	3-225-732-01	COLLAR	
504	3-934-325-01	SCREW, +K (5X8) TAPPING	
505	3-041-000-01	SPRING, FITTING	
506	1-465-459-21	ADAPTER, ANTENNA	
507	1-782-381-11	CORD (WITH CONNECTOR) (ISO P&S) (POWER) (South European)	
508	1-777-989-41	CORD (WITH CONNECTOR) (AMP REM/ATT)